

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
BERT W. ELLIOTT) Group Art Unit: 3635
)
Serial No.: 09/515,928) Examiner: Ryan D. Kwiecinski
)
Filed: February 29, 2000) Confirmation No.: 1357
)
For: SHINGLE FOR OPTICALLY) Attorney Docket: 24673A
SIMULATING A SLATE ROOF)

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APPELLANT'S BRIEF UNDER 37 C.F.R. § 41.37

Honorable Sir:

This brief is in furtherance of a Notice of Appeal, filed on December 6, 2007. The fees required under 37 C.F.R. § 41.20(b)(2), and any required petition for extension of time for filing this brief and fees therefore and any necessary fees are to be charged to Deposit Account No. 50-0568.

Appellant accordingly requests that the Board of Patent Appeals and Interferences reverse the Examiner as to all rejections.

Respectfully submitted,



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I. Real Party in Interest

The real party of interest is Owens Corning Intellectual Capital, LLC, the assignee of record, which is a corporation organized and existing by virtue of the laws of the State of Delaware, having its principal place of business in Toledo, Ohio.

II. Related Appeals and Interferences

There are no other appeals or interferences that are known to Appellant, the Appellant's representative, or assignee which will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

III. Status of Claims

Claims 17, 46-48, 53-58, 65-68 and 70 are finally rejected. Claims 1-16, 18-45, 49-52, 59-64, 69 and 71-73 are cancelled. Claims 17, 46-48, 53-58, 65-68 and 70 are appealed.

IV. Status of Amendments

Appellant's submission July 10, 2007, subsequent to the final Office Action dated April 10, 2007, has been entered by the Examiner as stated in the Office Action dated September 19, 2007.

V. Summary of Claimed Subject Matter

Appellant's specification states on page 1, lines 12-19 that the roof covering of the present invention provides a weatherproof covering for a structure and an aesthetically pleasing architectural feature which enhances the overall appeal of the structure. Further, on page 1, lines 19-24, the specification indicates that the roof covering of the invention includes laminated asphalt shingles that simulate the appearance of a natural slate roof.

As shown in FIG. 3, and described on page 7, in the paragraph on line 22, the roof covering is formed by laying an arranged series of overlapping horizontal courses of laminated shingles on a roof deck. The laminated shingles are laid side-by-side and offset from shingles in adjacent courses.

In the embodiment shown in Figs. 1 and 2, and described on page 4 in the paragraph at line 16, the roof covering includes laminated shingles consisting of an overlay member and an underlay member. Each of the overlay and underlay members are constructed of a suitable mat, permeated with an asphaltic material, and covered with granules.

As described in the paragraph on page 5, at line 3, the overlay member includes a butt portion having one or more tabs separated by cutouts. The width and shape of the tabs and the width and shape of the cutouts may vary depending of the width of the shingle.

As described in the paragraph on page 5, at line 14, a layer of granules is applied to each tab of the overlay member. The application of the granules to the tabs is precise such that the color blend for each tab is substantially uniform in color. The term color blend is the overall color effect produced by granules of different colors. Adjacent tabs can have different color blends or the same color blend, but each tab will have only one color blend.

As described in the paragraph on page 6, at line 20, the front surface of the underlay member is fixed to the rear surface of the overlay member. As shown in Figs. 1 and 2 and as described in the paragraph on page 6, at line 15, the front surface of the underlay member has a layer of granules. The layer of granules on the front surface of the underlay member can be seen through the cutouts of the overlay member once the underlay member is fixed to the overlay member.

As described in the paragraph on page 9, at line 4, the color blends of the tabs of the overlay member may consist of the same or different color blends that correspond to a color in a particular pattern unit, configured to provide a specific roof

appearance. The configuration of one particular pattern unit, providing the appearance of a natural slate roof, is shown in Fig. 1 and represents a roof covering in which a predominant tab color occurs more frequently than the other tab colors. As shown in Fig. 3, the predominant tab color occurs in at least 55 percent of the tabs.

In another embodiment, one of the color blends of the tabs is gray and the gray color blend occurs with more frequency than any of the other color blends of the tabs, thereby defining the predominant tab color blend. The frequency of the gray color blend in the roof is sufficiently prevalent to provide an appearance that simulates a natural slate roof.

VI. Grounds of Rejection to be Reviewed on Appeal

Grounds of rejection are set forth in the Advisory Action dated July 19, 2007 and the final Office Action dated September 19, 2007, as:

A. Whether claims 67 and 68 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent 6,014,847 to Phillips (hereafter, "Phillips") in view of U.S. Patent 1,843,370 to Overbury (hereafter, "Overbury").

B. Whether claims 17, 46-48, 53-58, 65-68 and 70 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent 5,195,290 to Hulett (hereafter, "Hulett") in view of U.S. Patent 1,843,370 to Overbury (hereafter, "Overbury")

C. Whether claims 17, 46-48, 53-58, 65-68 and 70 are unpatentable under 35 U.S.C. §103(a) over U.S. Patent 5,939,169 to Bondoc (hereafter, "Bondoc") in view of U.S. Patent 1,843,370 to Overbury (hereafter, "Overbury")

VII. Argument

A. Rejection of claims 66 and 68 under 35 U.S.C. 103(a) over Berkhoff in view of Overbury.

The Examiner argued, on page 3 of the Final Office Action dated September 19, 2007, that it would have been obvious at the time of the invention to one having

ordinary skill in the art that the tabs of the overlay of Phillips could have been provided with color blends different from one another with one color blend occurring more frequently, as taught by Overbury, to achieve a desired artistic effect.

The level of skill in the art of shingle design and process would be a person with at least a bachelor's degree in mechanical or chemical engineering, or in materials science, and this person would have at least five years of experience in shingle design or shingle process.

As discussed at page 3, at line 3 of Appellant's response dated July 20, 2001, the Phillips reference discloses a laminated shingle having a tabbed overlay attached to an underlay. The overlay has spaced apart tabs coated with a layer of colored granules. There are horizontal shadow lines at the top and bottom of the tabs, and a deeper horizontal shadow line along the top of the underlay, resulting in a staggered shadow line. As discussed at page 9, at the fourth paragraph of Appellant's response dated July 27, 2006, the Phillips reference discloses a roof covering having a wood shake appearance. However, the Phillips reference fails to disclose the limitation that one of the color blends of the tabs occurs more frequently than any of the other color blends of the tabs to the extent that a predominant tab color blend is defined, with the other color blends being accent colors that occur less frequently in the roof covering, and with the predominant color blend being sufficiently prevalent to provide the appearance of a roof covering that simulates a natural slate roof.

The Overbury reference discloses a process of refurbishing asphalt shingles. Overbury discloses that initially, the original shingles are multi-tabbed shingles, having a surface layer of comminuted material, such as crushed slate.

There are a number of reasons why the skilled artisan would conclude that the Overbury reference fails to supply the missing limitation of the predominant color blend being sufficiently prevalent to provide the appearance of a roof covering that simulates a natural slate roof.

1. Overbury's crushed slate covering does not provide the appearance of a natural slate roof. Although the Overbury reference discloses a shingle having a surface layer of crushed slate, using crushed slate as a surfacing material would give the roof an appearance of a single color, i.e., the color of the slate material used for the crushed slate layer. As explained in Appellant's response dated July 10, 2007, at page 9, in the last paragraph, the single uniform color of the comminuted material, even in the event the comminuted material is crushed slate, would not have the appearance of a natural slate roof. The single uniform color of Overbury would not have a predominant color blend with other color blends being accent colors that occur less frequently.

The term "natural slate roof" has the appearance of exposed portions of individual tiles partially overlaid by tiles of succeeding courses of tiles. As discussed in paragraph 10 of the declaration of the inventor Mr. Bert W. Elliott filed July 27, 2006, and the declaration of Mr. Donn R. Vermilion dated July 10, 2007, each of the exposed portions of tiles would have a single color, with at least about 60% of the tiles being of a predominant color, and typically significantly more than 60% of the tiles, such as for example 70-80%, with the remainder of the tiles being an accent color. As discussed in paragraph 9 of the declaration of the inventor Mr. Bert W. Elliott dated July 27, 2006, tabs of differing colors take on the appearance of an individual slate tile, and a roof covering of such shingles gives the appearance of a plurality of adjacent slate roof tiles. As further stated by Mr. Elliott, the fact that the color blend of some of the tabs differs from the color blend of other tabs gives the appearance of a roof where some of the slate tiles differ in color from others of the slate tiles. As further discussed in paragraph 4 of the Declaration of Donn R. Vermillion dated July 10, 2007, one of the features of providing natural slate roofs is that different sources of natural slate are available in different regions of the country. Shipping costs for natural slate tiles are high because of the weight of the tiles, and therefore typically slate is obtained from local or regional sources. Different sources of natural slate have

different colors. Commonly available natural slate colors are gray or green, and different natural slate colors such as red, purple or different shades of gray or green are more scarce. The realities of free market supply and demand commonly result in one slate color being less expensive than other slate colors. In any particular region the commonly available natural slate colors are less costly than the cost of the relatively scarce colors for that region. Accordingly, slate roofs typically have a predominant color, which is the least expensive color regionally available, with one or more additional colors interspersed to add variety and character to the roof covering.

Mr. Vermilion further stated that having a predominant color means that a natural slate roof has one color that occurs more frequently than the other colors in the roof. It also means that the more frequent color occurs sufficiently to be a prevalent color, and that the remaining colors are present for accent or variety. In fact, the prevalent color occurs with such frequency that the roof covering sometimes has an overall effect of just one color accented by the remaining colors.

The shingle disclosed in the Overbury reference in Fig. 6 shows that the leftmost tab is wider than any of the other tabs, and therefore the color of that tab would have more exposed area or coverage area when the shingles are installed as a roof covering. However, a simple analysis of Overbury's shingles, focusing on the width of each of the tabs of the shingle in Fig. 6, indicates that at best the most predominant color, the leftmost tab in Fig. 6, would amount to about one-third of the surface area of the roof covering. This relatively low percentage would not be sufficient to make this one color a predominant color, and therefore the roof covering of this combination would not have an appearance of a natural slate roof. Further, as discussed in the July 10, 2007 declaration by Mr. Vermilion, the width of the leftmost tab is not so great that a person of ordinary skill in the art would expect the overall roof appearance to be that of a natural slate roof since there would not be a predominant color to the extent expected in a natural slate roof.

2. Overbury does not disclose a frequently occurring color blend. As discussed at page 10, at line 5 of Appellant's response dated July 10, 2007, the Overbury reference fails to disclose a frequently occurring color blend defining a predominant color that simulates a natural slate roof, with the remainder of the tiles being of an accent color. Rather, the Overbury reference discloses that the resurfacing material can be colored, and that the colors of the additional layer of surfacing material can be arranged so that each color is confined to a portion of the strip shingle which corresponds to one tab of the shingle. Further, Overbury discloses that the color of each tab is different from that of another tab. Appellant asserts that a natural slate roof has the appearance wherein one of the color blends occurs with enough frequency so as to define a predominant color, with other color blends occurring for accent. The predominant color, being sufficiently prevalent and accented by other color blends, simulates the appearance of a natural slate roof. As discussed in paragraph 9 of the declaration by Bert W. Elliott filed January 24, 2005, customers are willing to pay a premium price over standard shingles to achieve the appearance of a natural slate roof, particularly since the installed cost of genuine or natural slate roofs is extremely high. There is nothing contained in the Overbury reference that shows or suggests the claimed limitation of a frequently occurring color blend defining a predominant color that simulates a natural slate roof, with the remainder of the tiles being of an accent color.

3. Overbury's use of the term "now and then" fails to result in a predominant color. As discussed in Appellant's response dated July 10, 2007, at page 10, at the second paragraph, the Overbury reference discloses that each shingle "will have a solid color different from other tabs in the strip, although if desired two or more adjacent tabs may now and then be given the same color." [Emphasis added]. This is a teaching that the one color would occur more frequently than other colors. As discussed in paragraph 20 of the Declaration of the inventor Mr. Bert W. Elliott dated July 27, 2006, the term "now and then" would be interpreted by a person of ordinary

skill as limiting the occurrence of multiple tabs of the same color in the same shingle to occasional occurrences, occurring seldomly. Mr. Elliott stated he would not expect the resulting roof covering to have a predominance of one color. Further, Mr. Elliott indicated that "now and then" would connote only infrequent deviations from the norm, and therefore there will be no predominant color for the resulting roof covering. Without a predominant color, the resulting roof covering would not have the appearance of a natural slate roof, and therefore the product would not be meeting the needs of the customers.

4. There is no suggestion to make the appearance of a natural slate roof. As discussed at page 10, at the final paragraph of Appellant's response dated July 10, 2007, there is no disclosure or suggestion in either reference directing anyone to increase the surface exposure of any one color to make the one color a predominant color to the extent that the roof covering has an appearance that simulates a natural slate roof.

5. There is no knowledge in the art suggesting the combination. Appellant asserts there is nothing in the knowledge generally possessed by one of ordinary skill in the art which would lead to modifying either of the references to provide one color of sufficient frequency or coverage area to simulate a natural slate roof.

6. Secondary considerations compel a finding of a lack of obviousness. In addition to the arguments set forth above and as discussed in paragraphs 9-16 of the declaration of the inventor Bert W. Elliott dated January 18, 2005, the claimed invention also enjoys many secondary consideration benefits that support non-obviousness. Appellant's shingle product has satisfied a long felt need in the residential shingle market for a roof covering having the appearance of a conventional slate tile roof at a substantially less cost. In filling this long felt need of the residential shingle market, Appellant has enjoyed overwhelming commercial success exhibited through great demand by customers in the residential shingle market and also by rapidly growing sales of its shingle product. Additionally, the overwhelming need and

positive response to Appellant's shingle product is further evidenced by Appellant's competitors copying their shingle product as soon as the product was released onto the market.

These claims of secondary considerations are fully supported by the declaration of Bert Elliott. Mr. Elliott was a Project Leader for Owens Corning (the assignee of the present patent application) and led the design of the claimed invention. Specifically, Mr. Elliott has over 16 years experience in the residential roofing market, having worked extensively in the areas of product development, production, and promotion of residential roofing products. Mr. Elliott has attested in his declaration that the shingle product of the claimed invention has satisfied a long felt need in the residential shingle market. Mr. Elliott has also provided overwhelming proof of the outstanding commercial success of the claimed shingle product, quoting first year sales, in 2003, in excess of \$3,000,000, which was realized with no extraordinary advertising expenditures.

Appellant asserts the commercial success of the shingle product of the claimed invention is commensurate with the scope of the claims. As one example, independent claim 17 includes the claim limitation wherein each tab has a single color blend, the color blends of some of the tabs of each shingle being a color blend different from the color blend of others of the tabs; and wherein one of the color blends of the tabs occurs more frequently than any of the other color blends of the tabs, thereby defining a predominant tab color blend, with the frequency of the tabs of the predominant color blend in the roof covering being sufficiently prevalent to provide the roof covering with an appearance that simulates a natural slate roof. This claim limitation, among others, is reflected in the commercial embodiment of the invention and directly resulted in the success of the shingle product of the claimed invention in the residential shingle market.

Additionally, the use of slate material in the United States as a protective covering for roofs is documented for centuries. Archeological excavations at

Jamestown, Virginia, have unearthed roofing slate in strata dating from 1625-1650 and 1640-1670. Slate roofs were introduced in Boston as early as 1654 and Philadelphia in 1699. Seventeenth century building ordinances of New York and Boston recommended the use of slate or tile roofs to ensure fireproof construction. Likewise, asphaltic-based shingles have been used since the early 1900's. Yet, a shingle for optically simulating a slate roof, as claimed in the present invention, remained unsolved until Appellant's application was filed in February, 2000. Appellant asserts the existence of this problem for a period of over 100 years, despite continued efforts of skilled artesian and refinements in the art, is evidence that the claimed roof covering was not obvious.

Finally, Mr. Elliott attested that the claimed shingle product sustained a significant premium price in the residential shingle market which could not be attributed to other features such as an improved warranty. Mr. Elliott provided evidence of competitors copying the shingle product of the claimed invention. Mr. Elliott referred to a competitor, CertainTeed Corp., who developed and released similar simulated slate roof shingles to the residential shingle market as early as June, 2004, which was only several months after the introduction of Appellant's shingle product onto the market. The secondary consideration evidence provided by Mr. Elliott provides additional and unquestionable support as to the non-obviousness of the shingle product of the present invention.

In conclusion, with respect to the contention that it would have been obvious to combine the Phillips and Overbury references to achieve a desired artistic effect, for the reasons stated above, the roof covering of the combined Phillips and Overbury references does not provide a roof covering wherein one of the color blends of the tabs occurs more frequently than any of the other color blends of the tabs to the extent that a predominant tab color blend is defined, with the other color blends being accent colors that occur less frequently in the roof covering, and with the predominant color blend being sufficiently prevalent to provide the appearance of a roof covering that

simulates a natural slate roof. Appellant's conclusion is supported by the declarations of Mr. Elliott and Mr. Vermilion.

Accordingly, claims 67 and 68 are non-obvious under 35 USC § 103(a) over Phillips in view of Overbury and Appellant respectfully requests reversal of the Examiner as to the rejection of claims 67 and 68.

B. Rejection of claims 17, 46-48, 53-58, 65-68 and 70 under 35 U.S.C. 103(a) over Hulett in view of Overbury.

The Examiner argued, on page 5 of the Final Office Action dated September 19, 2007, that it would have been obvious at the time of the invention to one having ordinary skill in the art that the tabs of the overlay of Hulett could have been provided with color blends different from one another with one color blend occurring more frequently, as taught by Overbury, to achieve a desired artistic effect.

The Hulett reference discloses laminated shingles having overlay members provided with a plurality of generally rectangular tabs separated by cutouts and underlay members provided with darker granules for a more pleasing appearance. The cutouts are illustrated as being narrow when compared to the tabs. The overlay has spaced apart tabs coated with a layer of colored granules. However, as noted by the Examiner on page 5, the Hulett reference fails to disclose the limitation that one of the color blends of the tabs occurs more frequently than any of the other color blends of the tabs to the extent that a predominant tab color blend is defined, with the other color blends being accent colors that occur less frequently in the roof covering, and with the predominant color blend being sufficiently prevalent to provide the appearance of a roof covering that simulates a natural slate roof.

For the same reasons as stated above, the Overbury reference fails to supply the missing limitation of a predominant color blend being sufficiently prevalent to provide the appearance of a roof covering that simulates a natural slate roof.

With respect to the contention that it would have been obvious to combine the Hulett and Overbury references to achieve a desired artistic effect, the roof covering of the combined Hulett and Overbury references does not provide a roof covering wherein one of the color blends of the tabs occurs more frequently than any of the other color blends of the tabs to the extent that a predominant tab color blend is defined, with the other color blends being accent colors that occur less frequently in the roof covering, and with the predominant color blend being sufficiently prevalent to provide the appearance of a roof covering that simulates a natural slate roof.

Accordingly, claims 17, 46-48, 53-58, 65-68 and 70 are non-obvious under 35 USC § 103(a) over Hulett in view of Overbury and Appellant respectfully requests reversal of the Examiner as to the rejection of claims 17, 46-48, 53-58, 65-68 and 70.

C. Rejection of claims 17, 46-48, 53-58, 65-68 and 70 under 35 U.S.C. 103(a) over Bondec in view of Overbury.

The Examiner argued, on page 7 of the Final Office Action dated September 19, 2007, that it would have been obvious at the time of the invention to one having ordinary skill in the art that the tabs of the overlay of Bondec could have been provided with color blends different from one another with one color blend occurring more frequently, as taught by Overbury, to achieve a desired artistic effect.

As discussed at page 3, at line 3 of Appellant's response dated July 20, 2001, the Bondec reference discloses a tri-laminated shingle having two overlays. Each overlay has 3 tabs. The overlays have different colors and the tabs of the overlays are offset with respect to each other. When the two overlays are combined, alternating tabs have alternating colors. However, as noted by the Examiner on page 6 of the Final Office Action dated September 19, 2007, the Hulett reference fails to disclose the limitation that one of the color blends of the tabs occurs more frequently than any of the other color blends of the tabs to the extent that a predominant tab color blend is defined, with the other color blends being accent colors that occur less frequently in

the roof covering, and with the predominant color blend being sufficiently prevalent to provide the appearance of a roof covering that simulates a natural slate roof. The Examiner also noted on page 6 that the Bondec reference fails to specify grey as the predominant color. Additionally, as discussed in the last paragraph on page 9 of Appellant's response dated July 27, 2006, Bondoc discloses a roof covering that by its own terms disclaims the appearance of a slate roof (Column 1, lines 10-14). Bondoc clearly intends to portray a "unique shingle" that does not mimic tile, slate or wood shake roofs.

For the same reasons as stated above, the Overbury reference fails to supply the missing limitation of a predominant color blend being sufficiently prevalent to provide the appearance of a roof covering that simulates a natural slate roof.

With respect to the contention that it would have been obvious to combine the Bondec and Overbury references to achieve a desired artistic effect, the roof covering of the combined Bondec and Overbury references does not provide a roof covering wherein one of the color blends of the tabs occurs more frequently than any of the other color blends of the tabs to the extent that a predominant tab color blend is defined, with the other color blends being accent colors that occur less frequently in the roof covering, and with the predominant color blend being sufficiently prevalent to provide the appearance of a roof covering that simulates a natural slate roof.

Accordingly, claims 17, 46-48, 53-58, 65-68 and 70 are non-obvious under 35 USC § 103(a) over Bondec in view of Overbury and Appellant respectfully requests reversal of the Examiner as to the rejection of claims 17, 46-48, 53-58, 65-68 and 70.

VIII. Claims Appendix

17. A roof covering including a plurality of successive generally horizontal courses of laminated shingles, the shingles in each course being laid in a side-by-side relationship and horizontally offset from the shingles in adjacent courses, each laminated shingle comprising:

an overlay member having front and rear surfaces, the overlay member including a headlap portion and a butt portion, the butt portion including a plurality of tabs separated by cutouts, each tab including a layer of granules on the front surface forming a generally uniform color blend, and each cutout being narrow when compared to the width of the tabs to provide an overall roof covering appearance of a natural slate roof; and

an underlay member having a front surface attached to the rear surface of the overlay member;

wherein each tab has a single color blend, the color blends of some of the tabs of each shingle being a color blend different from the color blend of others of the tabs; and

wherein one of the color blends of the tabs occurs more frequently than any of the other color blends of the tabs, thereby defining a predominant tab color blend, with the frequency of the tabs of the predominant color blend in the roof covering being sufficiently prevalent to provide the roof covering with an appearance that simulates a natural slate roof.

46. The roof covering according to Claim 17, wherein the predominant tab color blend occurs in roughly 60 percent of the tabs.

47. The roof covering according to Claim 46, wherein each laminated shingle has at least four tabs.

48. The roof covering according to Claim 46, wherein each laminated shingle is a three-tab laminated shingle.

53. The roof covering according to Claim 17, wherein each laminated shingle has at least four tabs.

54. The roof covering according to Claim 17, wherein each laminated shingle is a three-tab laminated shingle.

55. A roof covering including a plurality of successive generally horizontal courses of laminated shingles, the shingles in each course being laid in a side-by-side relationship and horizontally offset from the shingles in adjacent courses, each laminated shingle comprising:

an overlay member having front and rear surfaces, the overlay member including a headlap portion and a butt portion, the butt portion including a plurality of tabs separated by cutouts, each tab including a layer of granules on the front surface forming a generally uniform color blend, and each cutout being narrow when compared to the width of the tabs to provide an overall roof covering appearance of a natural slate roof; and

an underlay member having a front surface attached to the rear surface of the overlay member;

wherein each tab has a single color blend, the color blends of some of the tabs of each shingle being a color blend different from the color blend of others of the tabs; and

wherein one of the color blends of the tabs is gray, the gray color blend occurring more frequently than any of the other color blends of the tabs, thereby defining a predominant tab color blend, with the frequency of tabs of the gray color

blend in the roof covering being sufficiently prevalent to provide the roof covering with an appearance that simulates a natural slate roof

56. The roof covering according to Claim 55, wherein the predominant tab color blend occurs in roughly 60 percent of the tabs.

57. The roof covering according to Claim 56, wherein each laminated shingle has at least four tabs.

58. The roof covering according to Claim 56, wherein each laminated shingle is a three-tab laminated shingle.

65. The roof covering according to Claim 17, wherein the cutouts have a width of about 1 inch and the tabs have a width of about 6 inches.

66. The roof covering according to Claim 55, wherein the cutouts have a width of about 1 inch and the tabs have a width of about 6 inches.

67. A roof covering including a plurality of successive generally horizontal courses of laminated shingles, the shingles in each course being laid in a side-by-side relationship and horizontally offset from the shingles in adjacent courses, each laminated shingle comprising:

an overlay member having front and rear surfaces, the overlay member including a headlap portion and a butt portion, the butt portion including a plurality of tabs separated by cutouts, each tab including a layer of granules on the front surface forming a generally uniform color blend; and

an underlay member having a front surface attached to the rear surface of the overlay member;

wherein each tab has a single color blend, the color blends of some of the tabs of each shingle being a color blend different from the color blend of others of the tabs; and

wherein one of the color blends of the tabs occurs more frequently than any of the other color blends of the tabs, thereby defining a predominant tab color blend, with the other color blends being accent colors that occur less frequently in the roof covering, with the frequency of tabs of the predominant color blend in the roof covering being sufficiently prevalent to provide a roof covering with an appearance that simulates a natural slate roof.

68. The roof covering according to Claim 67, wherein the predominant tab color blend occurs in roughly 60 percent of the tabs.

70. The roof covering according to Claim 67, wherein the cutouts have a width of about 1 inch and the tabs have a width of about 6 inches.

IX. Evidence AppendixA. Declaration of Bert W. Elliott entered January 24, 2005

The first Declaration of Bert W. Elliott was entered into the record on January 24, 2005, as noted on page 2 of the Office Action dated December 2, 2005. The Declaration includes Exhibits A ("Berkshire Collection" brochure) and B ("Centennial Slate" brochure).

B. Declaration of Bert W. Elliott entered October 11, 2006

The second Declaration of Bert W. Elliott was entered into the record on October 11, 2006, as noted on page 2 of the Office Action dated October 11, 2006. The Declaration includes Exhibits A ("Berkshire Collection" brochure), B ("Centennial Slate" brochure) and C (U.S. Patent No. 1,843,370 to Overbury).

C. Declaration of Donn R. Vermilion entered September 19, 2007

The Declaration of Donn R. Vermilion was entered into the record on September 19, 2007, as noted on page 2 of the Office Action dated September 19, 2007. The Declaration includes Exhibit A (Figures 6 and 8 of U.S. Patent No. 1,843,370 to Overbury).

X. Related Decisions Appendix

NONE

CERIIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify that this document is being deposited with the U. S. Postal Service as first class mail in an envelope addressed to: Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date set forth below

Bert W. Elliott
(signature)

1-18-05

(Date of signature and deposit)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Bert W. Elliott

Group Art Unit 3635

Serial No.: 09/515,928

Examiner: Steve M. Varner

Filed: February 29, 2000

Attorney Docket No.: 24673A

For: SHINGLE FOR OPTICALLY
SIMULATING A SLATE ROOF

DECLARATION UNDER 37 CFR 1.132

Mail Stop Amendments
Commissioner for Patents, P.O. Box 1450
Alexandria, VA 22313-1450

State of Ohio, County of Lucas

Bert W. Elliott, being duly sworn, deposes and says:

1. I am a 1981 graduate of Miami University of Ohio in Oxford with a Bachelor of Environmental Design, and a 1983 graduate of the University of Illinois at Champaign-Urbana, with a Master of Architecture and a Master of Business Administration. I am a Registered Architect in the State of Minnesota.

2. Prior to joining Owens Corning, I was a custom home designer and contractor in Minneapolis and a sales representative of architectural metal products.

3. I joined Owens Corning in 1992 as an Area Sales Manager selling commercial and residential roofing products. I have held various other positions in sales, technical, and financial areas.

4. In 1999, I started with the Roofing Division as a Project Leader focusing on the development of new roofing products. I led the design and technical development of the new Berkshire®, Woodcrest™ and Woodmoor™ premium shingle products.

5. I am named as the inventor on numerous patents and pending applications for roofing products, and in particular for asphalt shingle products. I am the inventor named on the above-identified pending patent application.

6. In order to better serve the residential roofing market, Owens Corning has developed several asphalt shingle products that provide the look or appearance of more expensive roof coverings. By using creative and innovative designs for asphalt shingles, Owens Corning can offer the customer the look or appearance of more expensive roofing products, while still giving the customer the benefits of low cost and high performance of asphalt material.

7. As an example, Owens Corning developed the Prominance® shingle having strong shadow lines to create a look of added depth and beauty on a roof to simulate a wooden shake appearance. The installed cost of the Prominance asphalt shingle is lower than that of wooden shakes, and the asphalt shingles offer a superior fire rating.

8. The subject matter of the above-identified application, which is an asphalt shingle and roofing system that simulates a slate tile roof, is another design intended to simulate a higher-priced roofing product at a lower cost.

9. In one embodiment of the invention, the shingles are provided with color blends of granules for each tab so that each tab is substantially uniform in color, with the color blend of one of the tabs being different from the color blend of at least one other tab in the shingle. When installed on a roof, each tab takes on the appearance of an individual slate tile, and a roof covering of such shingles gives the appearance of a plurality of adjacent slate roof tiles. The fact that the color blend of some of the tabs differs from the color blend of other tabs gives the appearance of a roof where some of the slate tiles differ in color from others of the slate tiles. This provides an aesthetically pleasing appearance as a roof covering. Customers are willing to pay a premium price over standard shingles to achieve this appearance, particularly since the installed cost of genuine slate tile roofs is extremely high.

10. Owens Corning began marketing the Berkshire shingle, which simulates a slate tile roof, in January, 2003 to offer to its customers such a desirable appearance at an installed cost substantially below that of conventional slate tile roofs.

11. The Berkshire shingle is illustrated in the Owens Corning marketing brochure entitled "Berkshire Collection", a copy of which is attached as Exhibit A. It can be seen that a roof covering of the Berkshire shingles has the aesthetically pleasing appearance of a more expensive slate tile roof, and therefore the Berkshire shingle is a product of great demand by customers in the residential shingle market.

12. Owens Corning began selling the Berkshire shingle to its customers in February, 2003. The Berkshire shingles were enthusiastically received in the residential shingle market, and sales in 2004 exceeded \$3 Million.

13. Since their introduction in February 2003, sales of Owens Corning's Berkshire shingles have experienced strong growth, thereby highlighting the fact that Berkshire shingles fulfilled a long felt need in the marketplace.

14. The solid growth of the Berkshire shingles has occurred without any significant advertising over and above normal marketing efforts for Owens Corning shingle products, and is attributable to, and directly derived from, the unique concept of simulating a tile roof by forming the shingles with tabs of substantially uniform color and having the color of some of the tabs differing from the color of other tabs.

15. Additional evidence of the commercial success of the Berkshire shingles includes the fact that the market place is sustaining a price of about \$120 per square for Berkshire® shingles (i.e., sales price to the contractor), whereas the equivalent price for Oak Ridge PRO 50® shingles is only about \$60 per square. The Berkshire shingles carry a Lifetime Limited warranty and a 110 mph wind warranty, while the warranty for Oakridge PRO 50 is only 50

years with a 90 mph wind warranty. Based on the warranties alone one would expect the difference in price to be only about \$20 per square rather than \$60 per square, resulting in a net price premium of about \$40 per square.

16. In approximately June 2004 CertainTeed Corporation, an Owens Corning competitor, copied Owens Corning's concept of an asphalt shingle that simulated a slate roof, and began selling shingles similar to Owens Corning's Berkshire shingles under the brand name Centennial SlateTM. A CertainTeed marketing brochure, entitled "Centennial*SlateTM", illustrates the Centennial Slate shingles. A copy of the brochure is attached as Exhibit B.

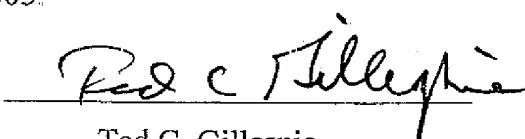
17. The fact that CertainTeed copied Owens Corning's concept of making a slate-looking roof by making the tabs of a substantially uniform color is additional evidence commercial success of the invention claimed in the above-identified patent application.

18. I hereby declare that all statements made in this declaration of my own knowledge are true, and that all statements made on information or belief are believed to be true; and further, all these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application and any patent issued from the application.



Bert W. Elliott

Sworn and subscribed before me
this 18th day of January, 2005.



Ted C. Gillespie

Notary Public

TED C. GILLESPIE, Attorney at Law
Notary Public - State of Ohio
My Commission Has No Expiration Date

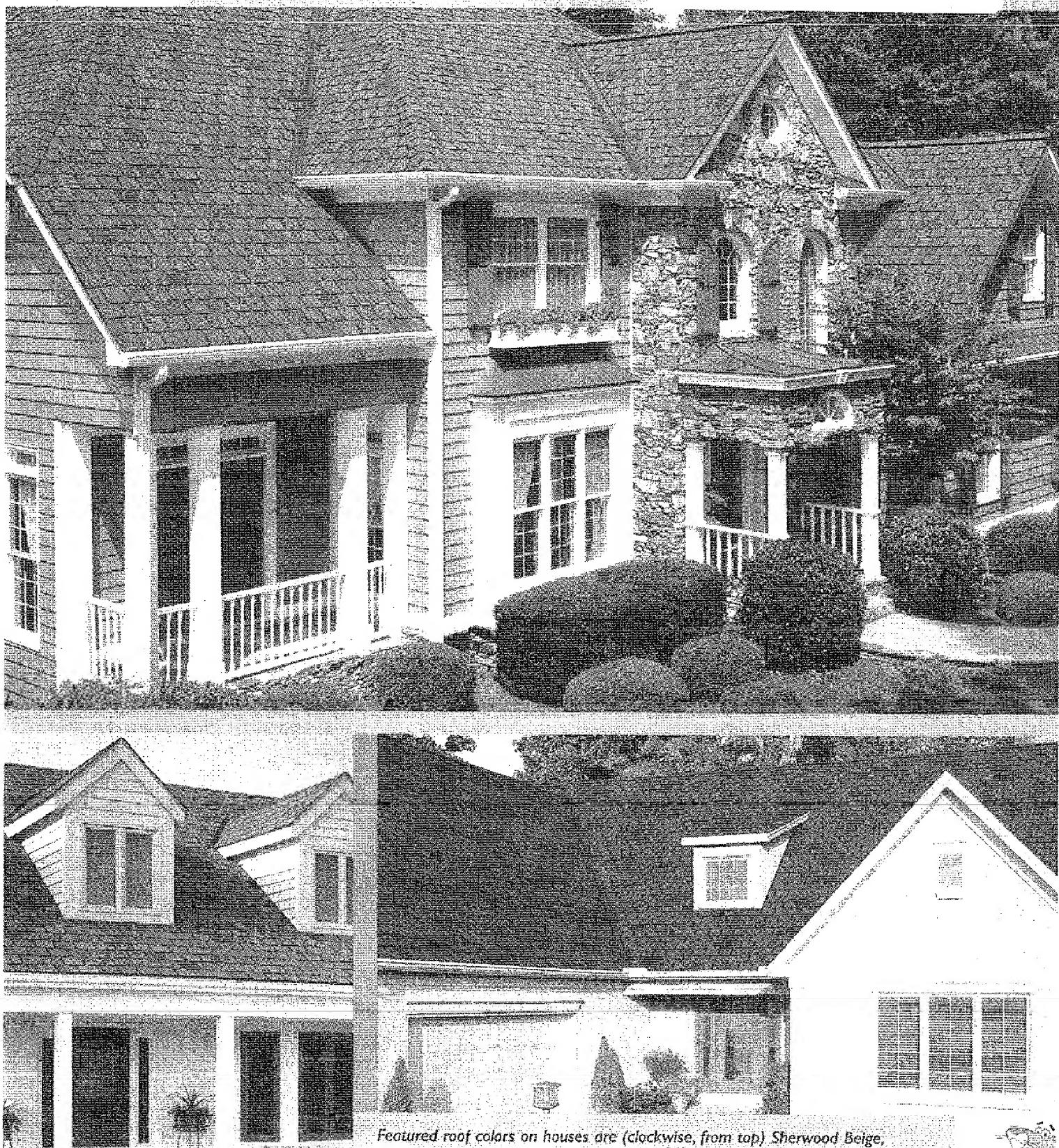
My commission has no expiration date.



INNOVATIONS FOR LIVING™

BERKSHIRE® COLLECTION BEAUTY THAT MAKES A STATEMENT

EXHIBIT A



Featured roof colors on houses are (clockwise, from top) Sherwood Beige,





INNOVATIONS FOR LIVING®

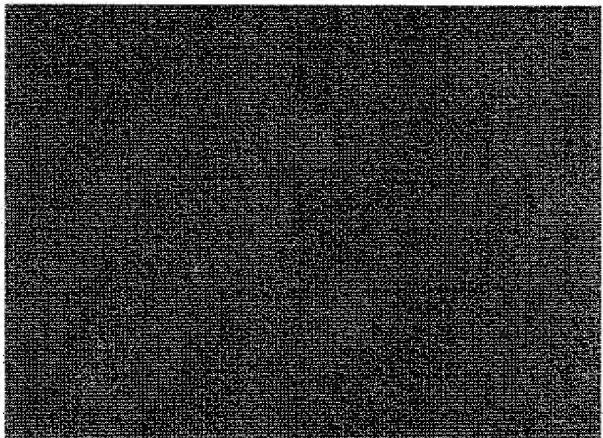
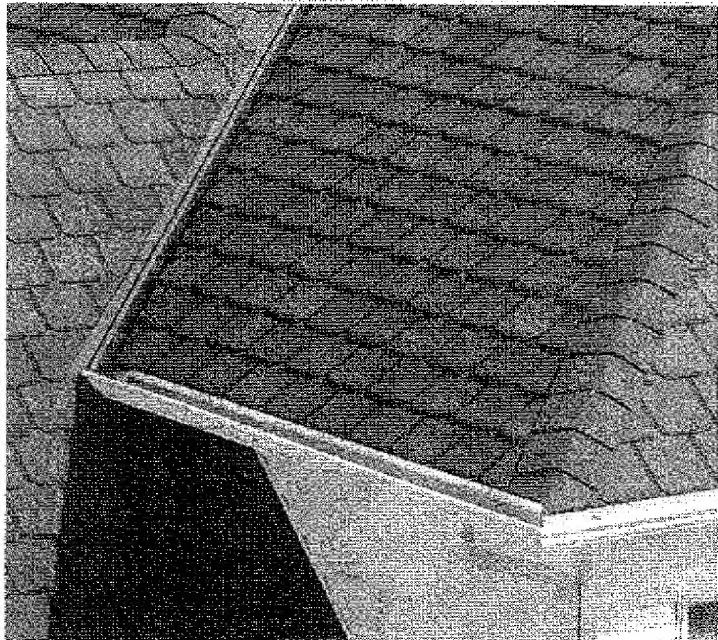
COLOR AVAILABILITY

Berkshire® Collection shingles offer more than an eye-catching roof—they help you create a beautiful home. Natural slate-like colors and textures blend with your home's surroundings to create an attractive, impressive look. Compatible with a variety of architectural styles, Berkshire Collection shingles add an appealing detail that is sure to make a statement.

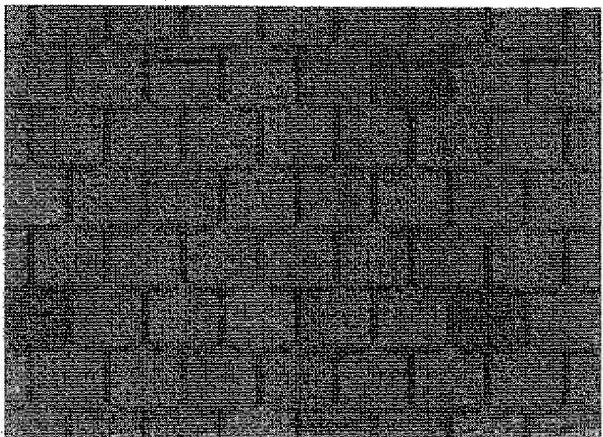
- Berkshire shingles and Berkshire Hip & Ridge shingles offer a natural slate-like appearance in your choice of eight traditional and designer colors.
- Unique color tabs blend four shades together for an attractive and distinctive look.
- Compatible with a variety of architectural styles
- Limited Lifetime Warranty with 10-year Triu PROtection® coverage includes 15-year algae resistance protection and 110-MPH wind resistance
- Complete roofing system requires Berkshire Hip & Ridge shingles, ventilation and water-resistant underlayment products



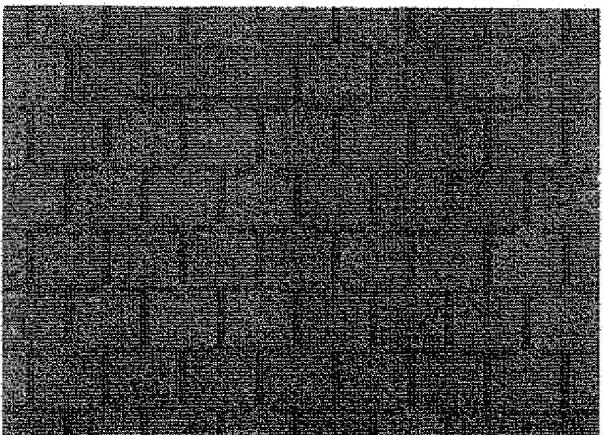
See actual warranty for complete details, limitations and requirements.



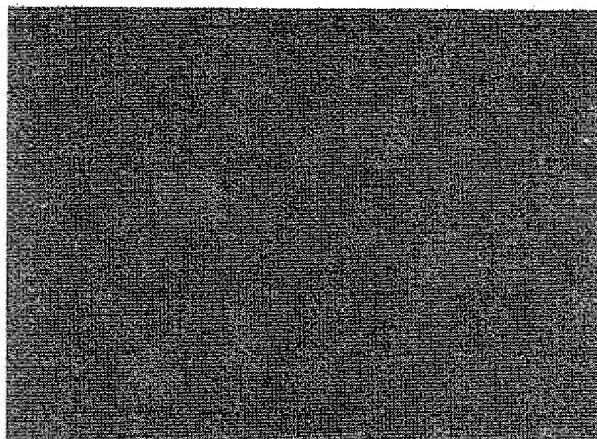
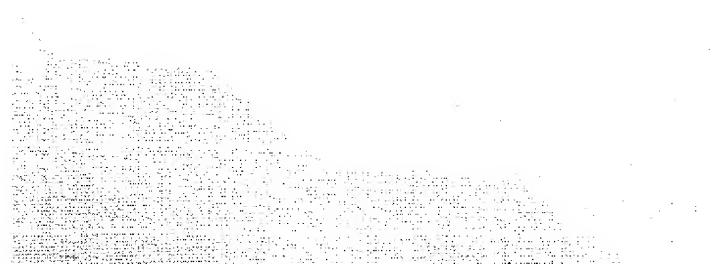
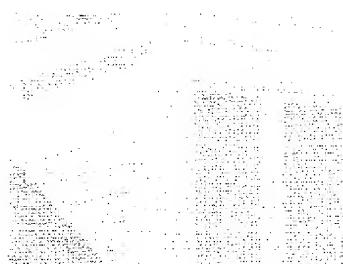
Canterbury Black[®]



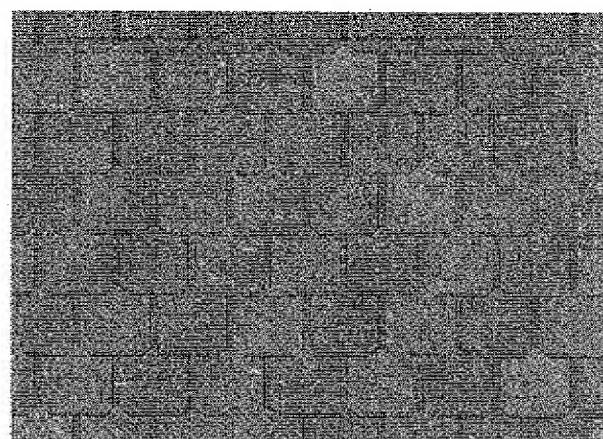
Concord[®]



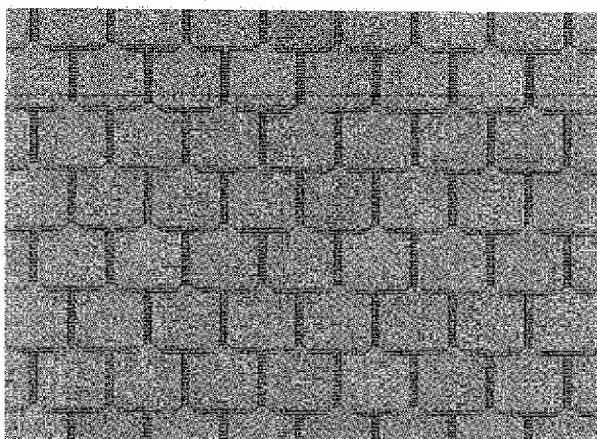
New Bedford Bronze[®]



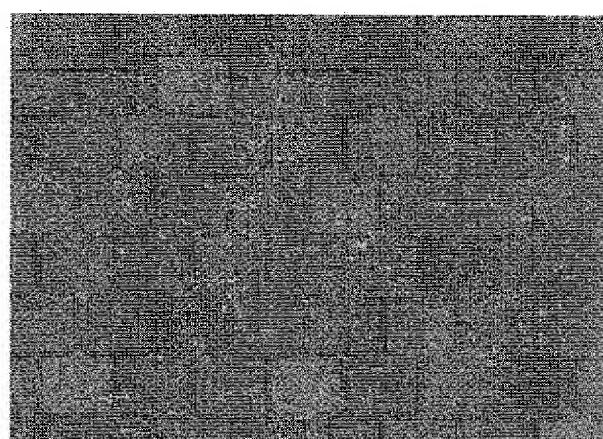
Chelsea Green[†]



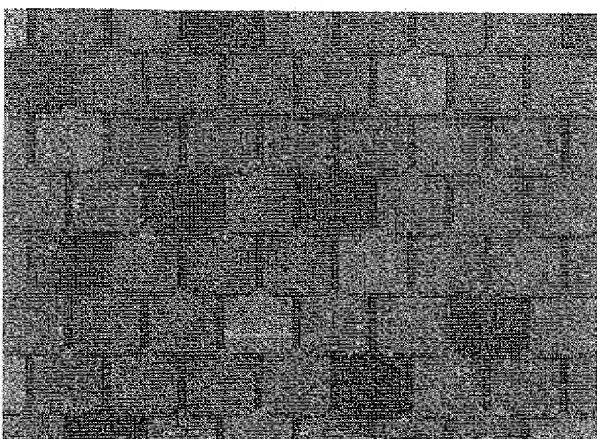
Colonial[†]



Dover Mist[†]



Manchester Grey[†]



Sherwood Beige[†]

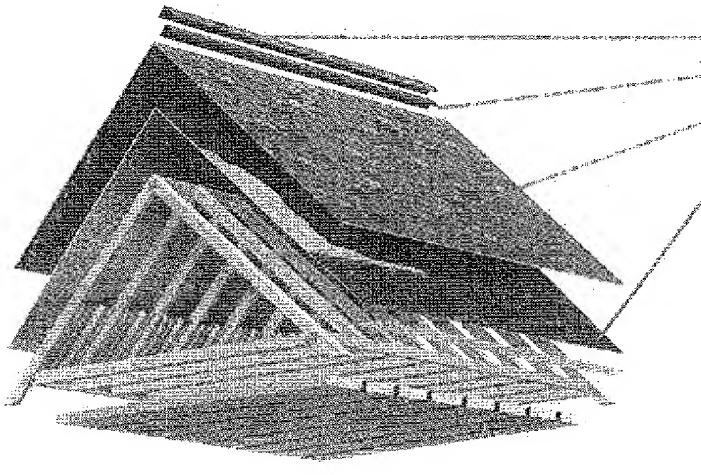
10x10cm Color glossy photo taken from repeatable photographs in catalog. This is a matching sample. Light, color of the printing paper, and the conditions of indoor lighting, natural sunlight and graphic transmission can all affect the photo. The pattern of your roll will also impact this. A single look may give more info. We suggest that you do a test strip display, since single view gets a better idea of the overall colors. To obtain truly accurate results, age and color choice, we recommend that you view our website at www.fineprint.com to learn more about colors.

BERKSHIRE® COLLECTION

BEAUTY THAT MAKES A STATEMENT

PROTECT YOUR HOME FROM THE TOP DOWN WITH OUR COMPLETE ROOFING SYSTEM

Your roof is more than just shingles. It's a complete system that also requires hip & ridge shingles, ventilation and water-resistant underlayment products. Each of these elements plays an important role in protecting your home and they work together to ensure the beauty and durability of your roof.



Berkshire® Hip & Ridge Shingles

VentSure® Ventilation Products

Berkshire® Shingles

WeatherLock® Water-Resistant Underlayment Products

BERKSHIRE® HIP & RIDGE SHINGLES

Help protect ridge vents from weathering

- Cover your roof's ridge line
- Add extra protection
- Designed to complement your Berkshire shingles

VENTSURE® VENTILATION PRODUCTS

Help prevent structural damage

- Fit between the top of your roof and its hip & ridge shingles
- Reduce moisture condensation in winter and excessive heat in summer to help guard against premature aging and deck warping
- Help keep air moving through the attic balancing outdoor and indoor temperatures

BERKSHIRE® SHINGLES

Provide protection and beauty

- Function best when used as part of a complete roofing system
- Ensure moisture resistance with weathering-grade asphalt coating
- Offer structural durability with a strong Fiberglas® mat core

WEATHERLOCK® WATER-RESISTANT UNDERLAYMENT PRODUCTS

Resist roof deck damage

- Act as a protective layer between your roof deck and shingles
- Are scientifically engineered to provide a solution to every application need with four uniquely designed water-resistant underlays

Berkshire® Shingle Product Specifications

Nominal Size:	18½" x 38"
Exposure:	8½"
Shingles per Square:	45
Bundles per Square:	5 bundles of 9 shingles
Coverage per Square:	99.5 sq. ft.
Weight (approximate):	425 lbs per square

Berkshire® Hip & Ridge Product Specifications

Nominal Size:	12" x 12"
Exposure:	8"
Pieces per Carton:	32
Lineal Feet per Carton:	21.3

Tested for Excellence

All Owens Corning shingles are tested to meet or exceed applicable standards measuring fire coverage and wind resistance.

Applicable Standards & Codes

ASTM D 3462	ASTM D 3018, Type I
ASTM E 108, Class A	UL 997
ASTM D 3161	UL 790, Class A



OWENS CORNING WORLD HEADQUARTERS
ONE OWENS CORNING PARKWAY
TOLEDO, OHIO USA 43659

1-800-GET-PINK
www.owenscorning.com

Pub No. 5773B B. Printed in U.S.A. December 2004 THE PINK PANTHER™
©1964-2004 Metro-Goldwyn-Mayer Studios Inc. All Rights Reserved.
The color PINK is a registered trademark of Owens Corning.
©2004 Owens Corning



EXHIBIT B

CENTENNIAL® SLATE™

Innovation Through Science and Art™



2004 Builder
Brand Use Study

Certainteed



Certainteed
100

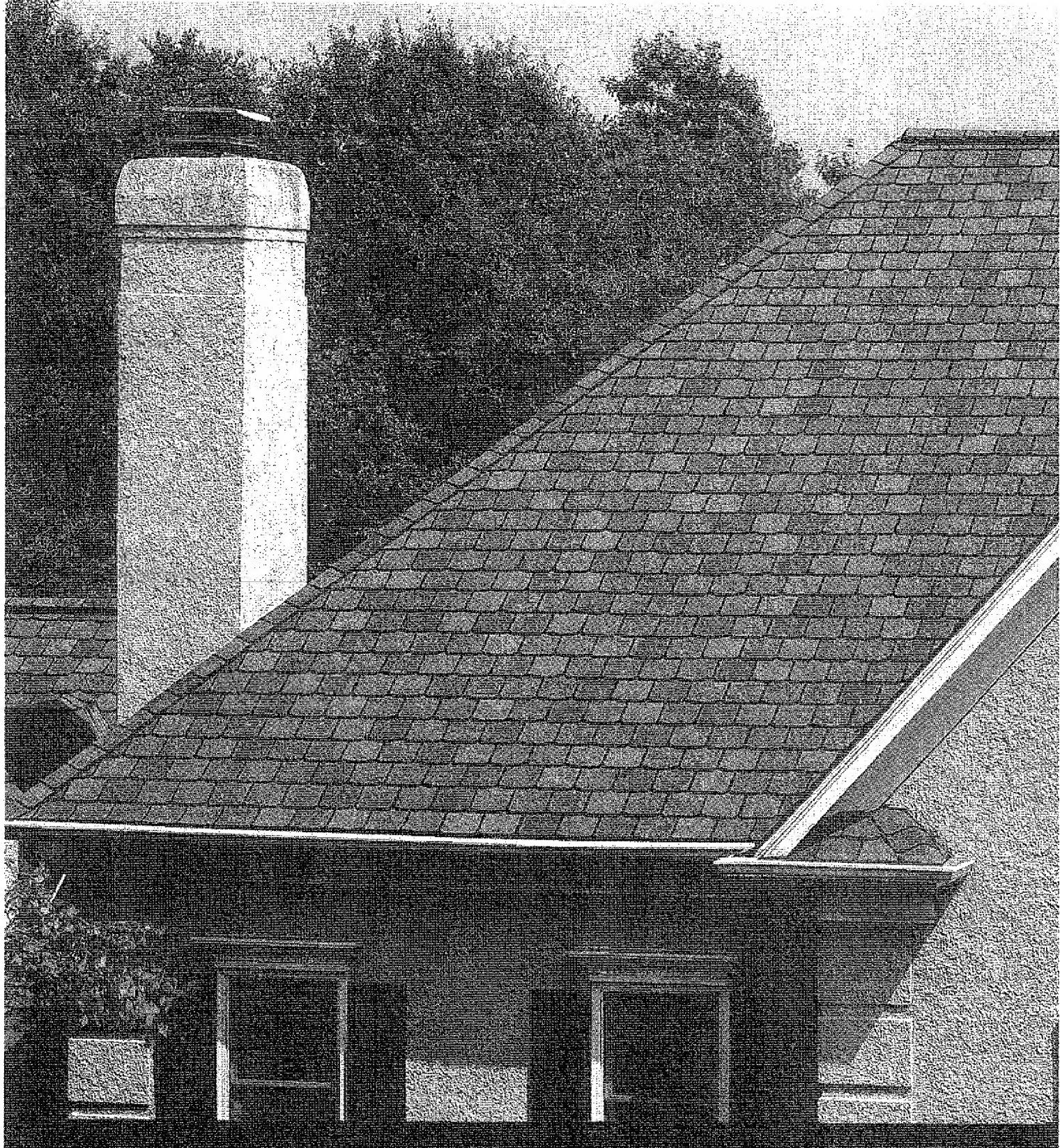
Celebrating a Century
of Building America

THE
ROOFING
COLLECTION

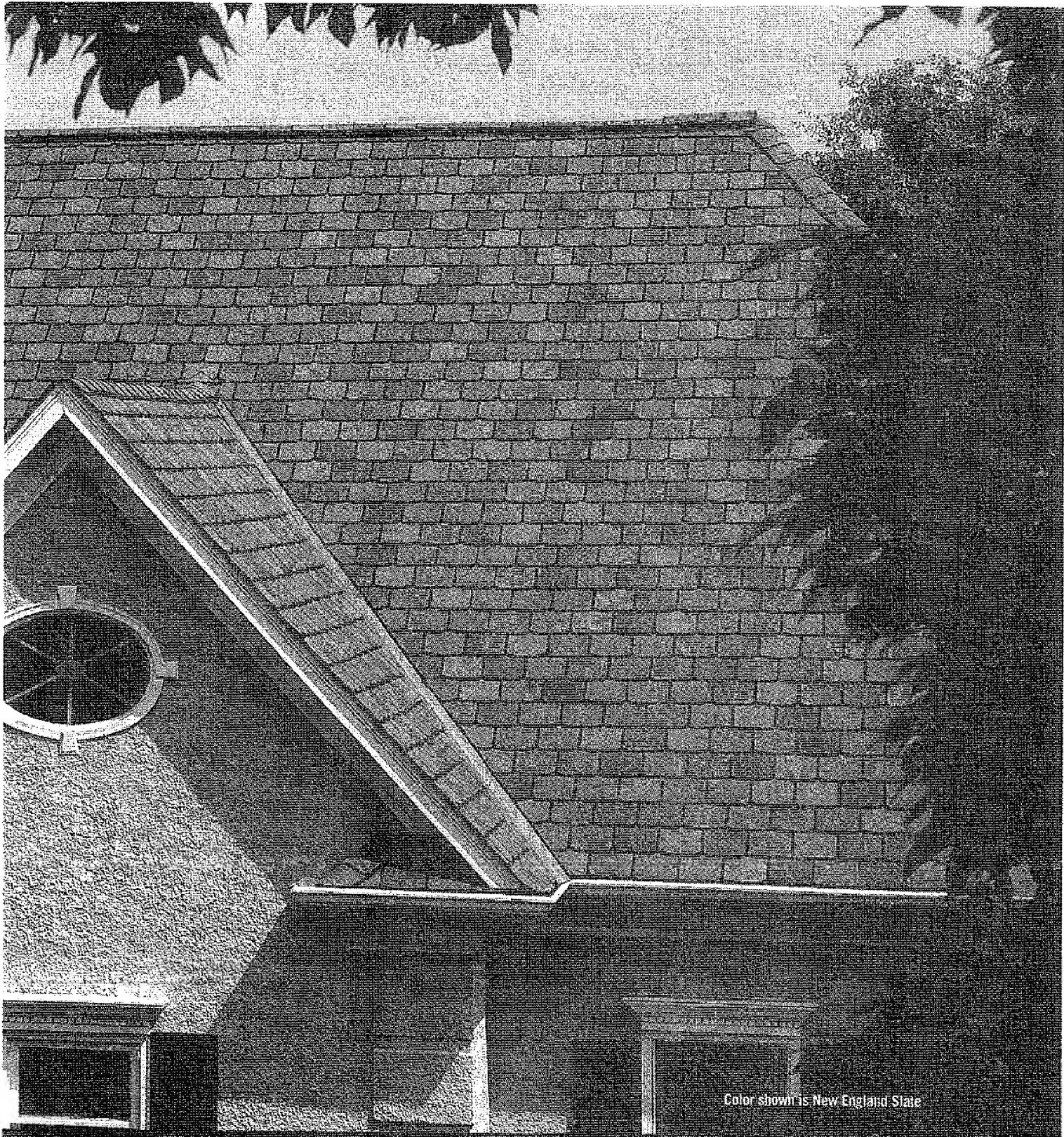
Certainteed

Quality made certain. Satisfaction guaranteed.

Color shown is Fieldstone



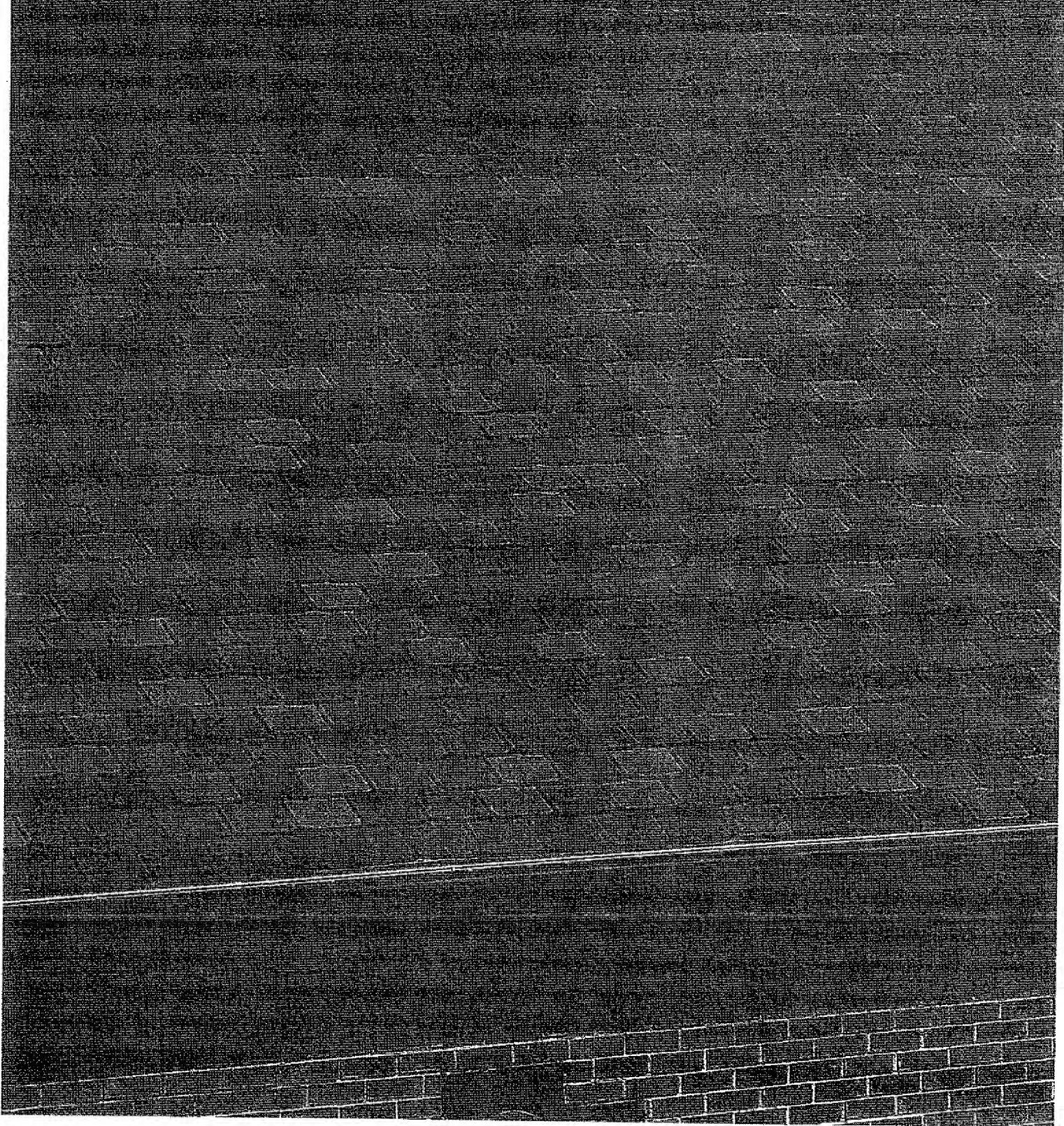
Like the shingles themselves, the reasons
are many, varied, com

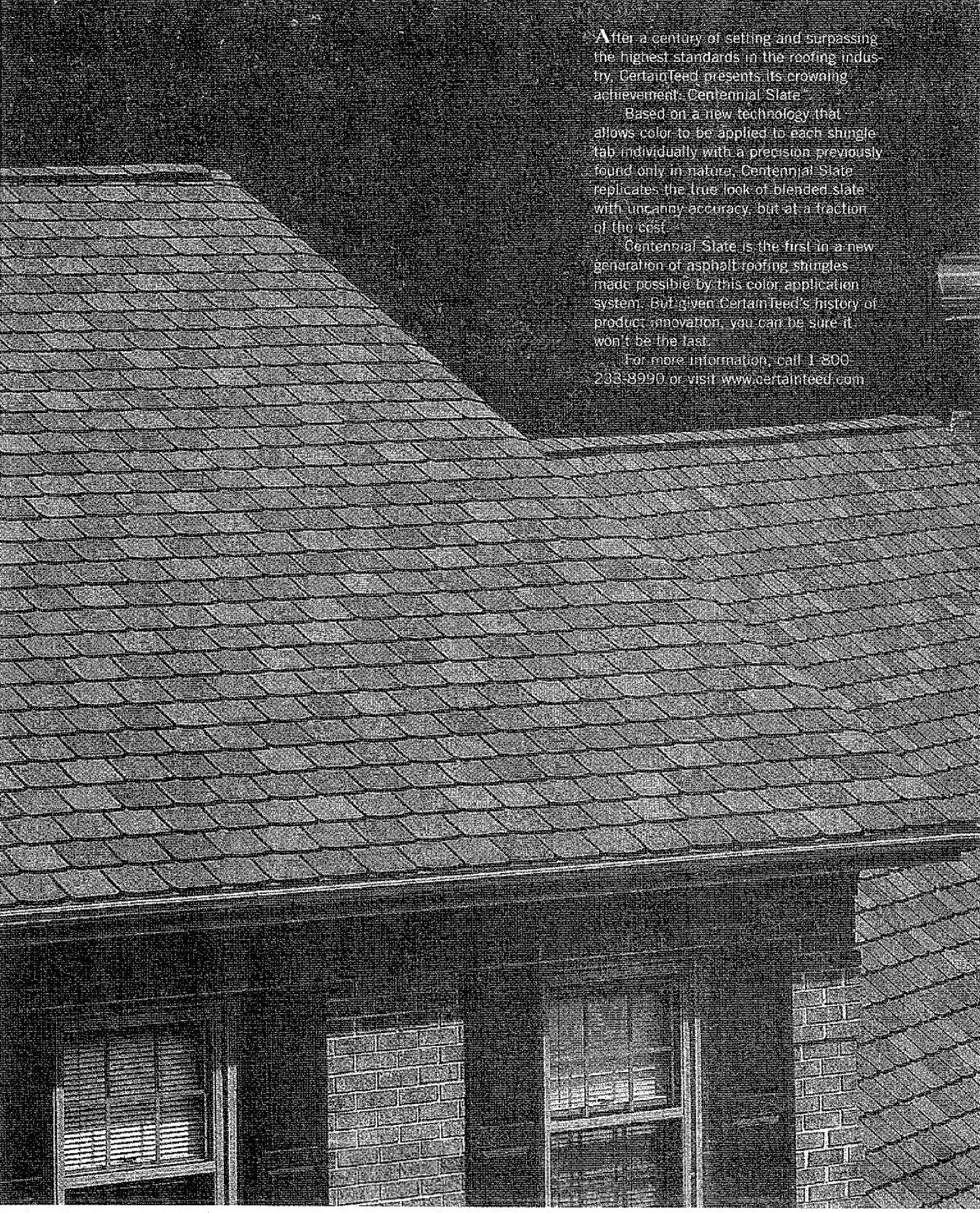


Color shown is New England Slate

selecting a roof of Centennial Slate
is lasting and enduring.

Welcome to
the slate of the art





After a century of setting and surpassing the highest standards in the roofing industry, CertainTeed presents its crowning achievement: Centennial Slate.

Based on a new technology that allows color to be applied to each shingle tab individually with a precision previously found only in nature, Centennial Slate replicates the true look of blended slate with uncanny accuracy, but at a fraction of the cost.

Centennial Slate is the first in a new generation of asphalt roofing shingles made possible by this color application system. But given CertainTeed's history of product innovation, you can be sure it won't be the last.

For more information, call 1-800-233-8990 or visit www.certainteed.com.

THE COLOR VARIES RICHLY THE QUALITY, NOT AT ALL.

Although the color patterns have the spontaneous random beauty of natural slate, Centennial Slate is unvarying in the strength and durability of its construction.

Equally suited to many architectural styles, Centennial Slate utilizes an ingenious design in which two full-sized base shingles combine to simulate the profile of natural slate, providing four full layers of weather protection when installed.

And to ensure the handsome profile endures unblemished, a special formulation of copper granules protects your roof for a full 15 years against the streaking and discoloration that can be caused by airborne algae.*

PROTECT YOURSELF.

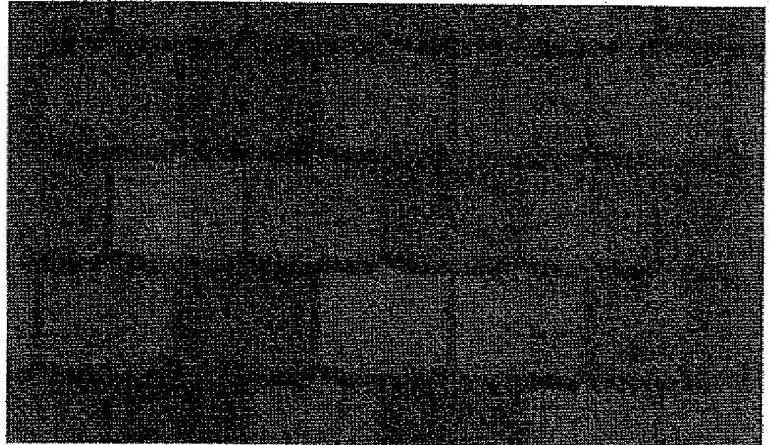
Be sure to ask your roofing contractor for a copy of the CertainTeed product warranty or call the CertainTeed Home Institute at (800) 782-8777 to request a copy. We make it easy for you to view our warranties and register your investment online at www.certainteed.com/warranty.

See actual warranty for details and limitations.

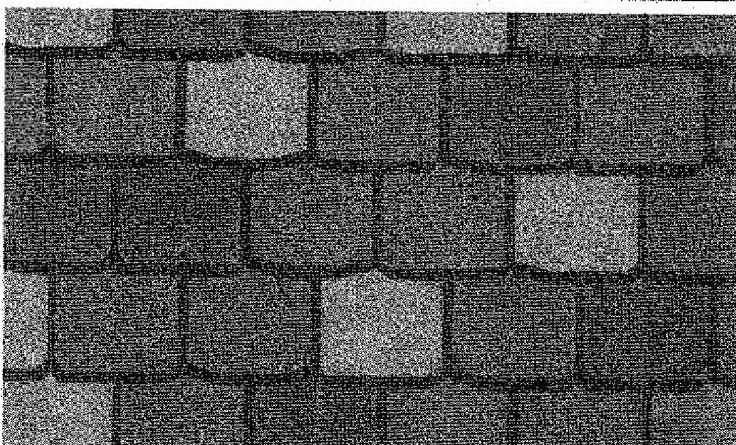
Color Companion Products



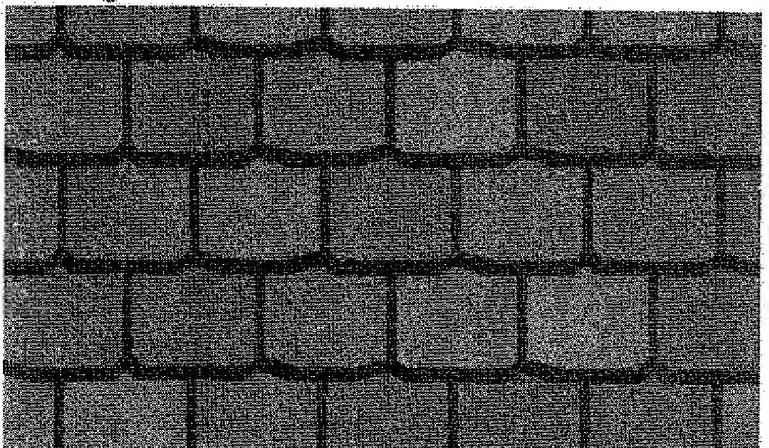
your Centennial Slate color palette



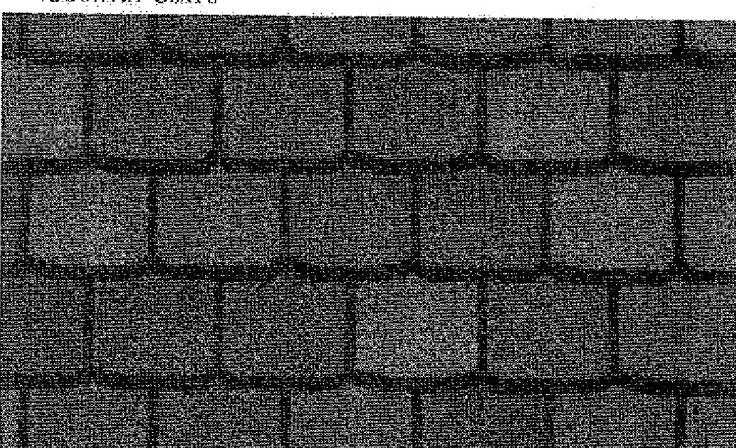
BLACK GRANITE



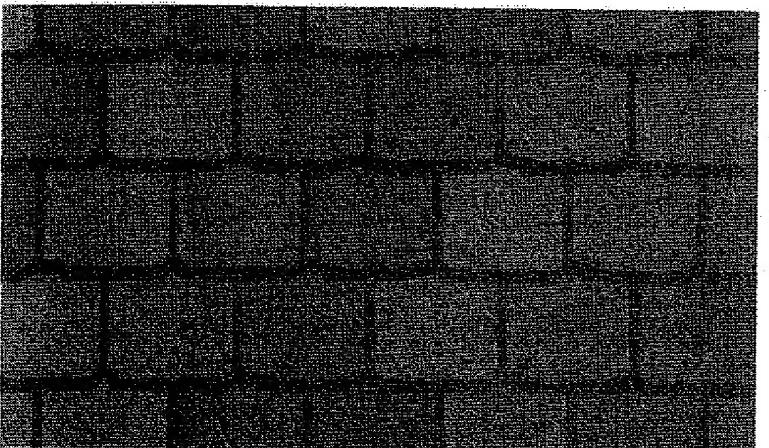
COUNTRY SLATE



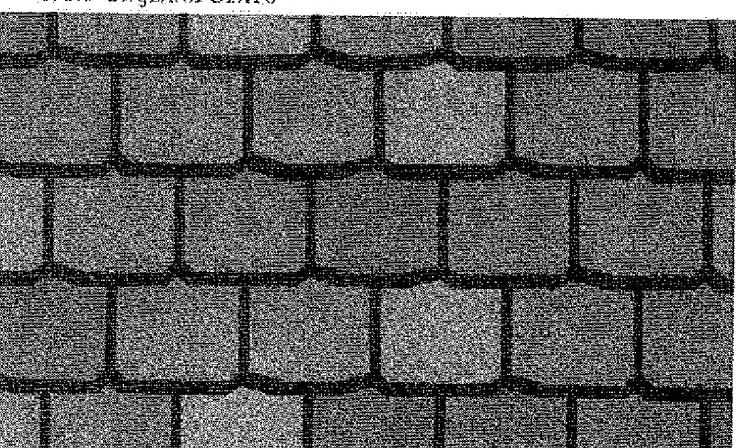
FIELDSTONE



NEW ENGLAND SLATE



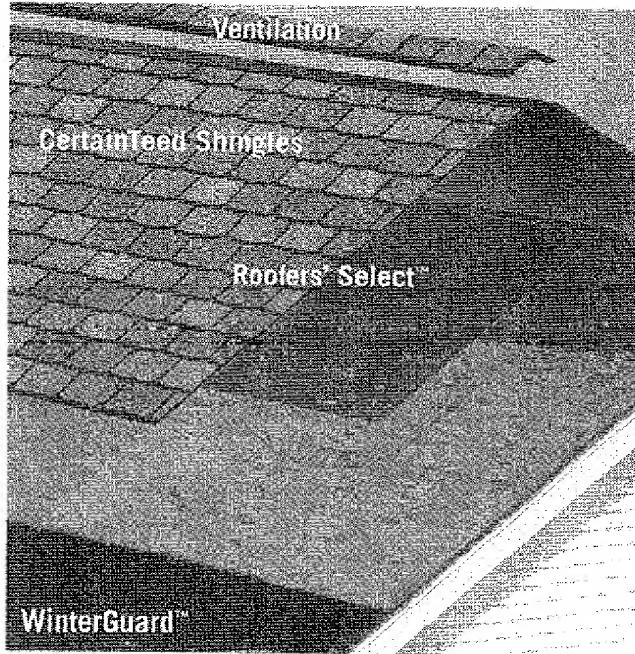
PLYMOUTH ROCK



SMOKEY QUARTZ

THE INTEGRITY ROOF SYSTEM

Superb performers that work even better as a team
INSTALL THE SYSTEM



WinterGuard™

WinterGuard

Waterproofing shingle underlayment prevents leaks from ice dams and wind-driven rain in vulnerable areas

Roofers' Select™

High-performance underlayment as a secondary barrier against leaks

CertainTeed Shingles

High-quality shingles available in a wide variety of styles and colors covered by one of the best warranties in the business

Ventilation

A properly balanced ventilation system improves air circulation and provides year round benefits

Flintlastic® Roll Roofing

A selection of high-quality roll roofing products including Flintlastic SA self-adhering membranes for porches, carports, canopies, additions, and any low slope roof. Available in 8 colors to match or complement CertainTeed shingles

THE COLOR SELECTION PROCESS

The choice of color for your new roof is never an easy one. With so many attractive options to consider and with all the variables that can affect its appearance (such as time of day, weather conditions and pitch), the best way to evaluate your color choice is always to view it in daylight on a roof that is pitched similarly to yours.

Although the photographs in this brochure on our sample boards and on our website (www.certainteed.com) are as accurate as modern technology will allow, there will always be variation in the printing process, in lighting conditions and in the accuracy of computer monitors which will affect the appearance of color. We therefore recommend that you take the following steps before making a final decision:

1. View a full size shingle
2. Look at actual roof applications
3. Consider viewing several roof applications under various kinds of light, i.e., bright sun, partial sun, full cloud, etc.
4. View homes with your shingle color choice with roof pitches similar to your own.

NOTE: REPRODUCTION OF COLORS

throughout this publication is as accurate as modern printing will permit. Colors are subject to changes by granule manufacturers.

DOWN TO THE LAST DETAIL

Your Centennial Slate roof can be elegantly accented with coordinating Grand Manor/Carriage House hip and ridge accessory in complementary colors. The accessory provides 3 1/2 exposure and two full layers of protection when installed.

See chart to select the Grand Manor/Carriage House accessory color that best accents your Centennial Slate Roof.

Centennial Slate Color	Accessory Color
Smokey Quartz	Stonemage Gray
Fieldstone	Gatetown Slate
New England Slate	Colonial Slate
Country Slate	Country Slate
Plymouth Rock	Plymouth Rock
Black Granite	Black Granite

High-Performance Starter for use with Centennial Slate saves time and money and is the only approved installation alternative to using the shingles themselves.

SPECIFICATIONS

- Patented SuperShingle® construction
- Virtual four-layer coverage when applied
- Fiber glass composition; UL Class A
- UL Certified to meet ASTM D-3462
- Miami-Dade accepted
- Algae resistant
- Provides the look of true blended slate
- 355 lbs. per square

WARRANTIES*

- Centennial Slate is manufactured with algae-resistant copper roofing granules and is certified to protect against discoloration for 15 years after installation.*
- Lifetime limited transferable warranty against manufacturing defects on residential applications
- 50-year limited transferable warranty against manufacturing defects on group-owned or commercial applications
- 10-year SureStart® protection
- 10-year warranty against winds up to 110 mph

* See actual warranty for specific details and limitations.

** *Not recommended.* If you live in a coastal area where salt fog is a frequent basis, but rain only occurs on an infrequent basis, you should not use aluminum gutters on buildings we coated with algae-resistant shingle products containing copper granules. Under these unique climate conditions, oxidation of the copper in the granules with the aluminum in the gutters can destroy the gutters.

Lifetime limited transferable warranty, including 10-year SureStart protection, are applicable only in the United States. For products sold outside these areas, please refer to the International Warranty for specific details and limitations.

Made under U.S. Pat. 5,287,069, 5,400,558, 5,421,134, 5,426, 5,501,096, 5,650,014, 5,651,609, 5,199,901, 6,237,288, 5,395, 6,523,316, 6,715,252. Other patents issued in the U.S. and Canada.

THIS PRODUCT IS CERTIFIED BY UNDERWRITERS LABORATORIES TO MEET ASTM D3462, A TOUGH SHINGLE PERFORMANCE STANDARD REQUIRED IN MANY OF TODAY'S BUILDINGS.

COOPERATIVE OFFICE

750 E. Swedesford Road
P.O. Box 860
Valley Forge, PA 19482
(610) 341-7000

TECHNICAL SERVICES
(800) 345-1145

FAX ON DEMAND
(800) 947-0057

CertainTeed

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For more information on this or any of CertainTeed's family of building products, visit us at www.certainteed.com or call (800) 782-8777

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Bert W. Elliott GAU 3635; Conf. No. 1357
Serial No.: 09/515,928 Examiner: Robert Canfield
Filed: February 29, 2000 Attorney Docket No.: 24673A
For: SHINGLE FOR OPTICALLY
SIMULATING A SLATE ROOF

DECLARATION UNDER 37 CFR 1.132

Mail Stop Amendments
Commissioner for Patents, P.O. Box 1450
Alexandria, VA 22313-1450

State of Ohio, County of Lucas

Bert W Elliott, being duly sworn, deposes and says:

- 1 I am a 1981 graduate of Miami University of Ohio in Oxford with a Bachelor of Environmental Design, and a 1983 graduate of the University of Illinois at Champaign-Urbana, with a Master of Architecture and a Master of Business Administration I am a Registered Architect in the State of Minnesota.
 - 2 Prior to joining Owens Corning, I was a custom home designer and contractor in Minneapolis and a sales representative of architectural metal products
 - 3 I joined Owens Corning in 1992 as an Area Sales Manager selling commercial and residential roofing products I have held various other positions in sales, technical, and financial areas.

4. In 1999, I started with the Roofing Division as a Project Leader focusing on the development of new roofing products. I led the design and technical development of the new Berkshire®, Woodcrest™ and Woodmoor™ premium shingle products.

5. I am named as the inventor on numerous patents and pending applications for roofing products, and in particular for asphalt shingle products. I am the inventor named on the above-identified pending patent application

6. In order to better serve the residential roofing market, Owens Corning has developed several asphalt shingle products that provide the look or appearance of more expensive roof coverings. By using creative and innovative designs for asphalt shingles, Owens Corning can offer the customer the look or appearance of more expensive roofing products, while still giving the customer the benefits of low cost and high performance of asphalt material

7. As an example, Owens Corning developed the Prominance® shingle having strong shadow lines to create a look of added depth and beauty on a roof to simulate a wooden shake appearance. The installed cost of the Prominance asphalt shingle is lower than that of wooden shakes, and the asphalt shingles offer a superior fire rating

8. The subject matter of the above-identified application, which is an asphalt shingle and roofing system that simulates a natural slate roof, is another design intended to simulate a higher-priced roofing product at a lower cost

9. In one embodiment of the invention, as defined in the claims of the above-identified patent application, the shingles are provided with an overlay, having tabs and cutouts, and an underlay. Each cutout is narrow when compared to the width of the tabs to provide an overall roof covering appearance of a natural slate roof. When the shingles are installed on a roof to form a roof covering, the shingles are installed in a plurality of successive generally horizontal courses of laminated shingles, the shingles in each course

being laid in a side-by-side relationship and horizontally offset from the shingles in adjacent courses. Each tab is provided with a color blend of granules so that each tab has a single color blend different from the color blend of others of the tabs. When installed on a roof, each tab takes on the appearance of an individual slate tile, and the roof covering of such shingles gives the appearance of a plurality of adjacent slate roof tiles. The fact that the color blend of some of the tabs differs from the color blend of other tabs gives the appearance of a roof where some of the slate tiles differ in color from others of the slate tiles. Further, one of the color blends of the tabs of the shingles occurs more frequently than any of the other color blends of the tabs, thereby defining a predominant tab color blend so that the appearance of the roof covering simulates a natural slate roof. This provides an aesthetically pleasing appearance as a roof covering. Customers are willing to pay a premium price over standard shingles to achieve this appearance, particularly since the installed cost of genuine or natural slate roofs is extremely high.

10. In a specific embodiment of the invention, as defined in claims 46, 56 and 68, roughly 60 percent of the tabs have a predominant tab color blend. In another specific embodiment of the invention, as defined in claims 52, 62, and 69, over 50 percent of the tabs have a predominant tab color blend. In both of these embodiments, the resulting predominant tab color blend provides the appearance of the roof covering simulating a natural slate roof, thereby providing an aesthetically pleasing appearance as a roof covering. Customers are willing to pay a premium price over standard shingles to achieve this appearance.

11. Owens Corning began marketing the Berkshire shingle, which simulates a natural slate roof, in January, 2003 to offer to its customers such a desirable appearance at an installed cost substantially below that of conventional natural slate roofs.

12. The Berkshire shingle is illustrated in the Owens Corning marketing brochure entitled "Berkshire Collection", a copy of which is attached as Exhibit A. It can be seen that a roof covering of the Berkshire shingles has the aesthetically pleasing appearance of a more expensive natural slate roof, and therefore the Berkshire shingle is a product of great demand by customers in the residential shingle market.

13. Owens Corning began selling the Berkshire shingle to its customers in February, 2003. The Berkshire shingles were enthusiastically received in the residential shingle market, and sales in 2004 exceeded \$3 Million.

14. Since their introduction in February 2003, sales of Owens Corning's Berkshire shingles have experienced strong growth, thereby highlighting the fact that Berkshire shingles fulfilled a long felt need in the marketplace.

15. The solid growth of the Berkshire shingles has occurred without any significant advertising over and above normal marketing efforts for Owens Corning shingle products, and is attributable to, and directly derived from, the unique concept of simulating a natural slate roof by forming the shingles with tabs of substantially uniform color and having the color of some of the tabs differing from the color of other tabs, and by having one of the color blends of the tabs occurring more frequently than any of the other color blends, thereby defining a predominant tab color blend so that the appearance of the roof covering simulates a natural slate roof.

16. Additional evidence of the commercial success of the Berkshire shingles includes the fact that the market place is sustaining a price of about \$120 per square for Berkshire® shingles (i.e., sales price to the contractor), whereas the equivalent price for Oak Ridge PRO 50® shingles is only about \$60 per square. The Berkshire shingles carry a Lifetime Limited warranty and a 110 mph wind warranty, while the warranty for Oakridge PRO 50 is only 50

years with a 90 mph wind warranty. Based on the warranties alone one would expect the difference in price to be only about \$20 per square rather than \$60 per square, resulting in a net price premium of about \$40 per square.

17. In approximately June 2004 CertainTeed Corporation, an Owens Corning competitor, copied Owens Corning's concept of an asphalt shingle that simulated a slate roof, and began selling shingles similar to Owens Corning's Berkshire shingles under the brand name Centennial SlateTM. A CertainTeed marketing brochure, entitled "Centennial*SlateTM", illustrates the Centennial Slate shingles. A copy of the brochure is attached as Exhibit B.

18. The fact that CertainTeed copied Owens Corning's concept of making a slate-looking roof by making the overall roof covering have predominant tab color blend is additional evidence commercial success of the invention claimed in the above-identified patent application.

19. As a result of the introduction of the CertainTeed Centennial Slate shingles, Owens Corning began to lose market share to CertainTeed in this market segment, and the sales of Owens Corning Berkshire shingles dropped in 2005 relative to sales in 2004.

20. I further note that one of the patent references cited against the claims in the above-identified patent application is U.S. Patent No. 1,843,370 to Overbury. The Overbury reference, a copy of which is attached as Exhibit C, discloses applying additional granular material to shingles to cover surface imperfections. Overbury specifically discloses that the additional granules may be configured so that the tabs of a shingle may be of different colors, with each tab having a single color blend different from the color blend of the other tabs on the shingle. Overbury further states at page 2, lines 93-96, that ". . . each tab will have a solid color different from other tabs in the strip, although if desired two or more adjacent tabs may now and then be given the same color." I believe that one skilled in the art of shingle design, such as myself, would interpret this statement, as I interpret this statement, as limiting the occurrence

of multiple tabs of the same color in the same shingle to occasional occurrences, occurring seldomly. As a result, I would not expect the resulting roof covering to have a predominance of one color "Now and then" would connote only infrequent deviations from the norm, and therefore there will be no predominant color for the resulting roof covering. Without a predominant color, the resulting roof covering would not have the appearance of a natural slate roof, and therefore the product would not be meeting the needs of the customers.

21 I hereby declare that all statements made in this declaration of my own knowledge are true, and that all statements made on information or belief are believed to be true; and further, all these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application and any patent issued from the application



Bert W. Elliott

Sworn and subscribed before me
this 20th day of July, 2006.



Christina M. Hansen

Notary Public

Christina M. Hansen
Notary Public State of Ohio
My Commission Exp. 7/30/2006

Feb. 2, 1932.

F C OVERBURY

1,843,370

IRREGULAR STRIP SHINGLE

Filed June 1, 1926

2 Sheets-Sheet 1

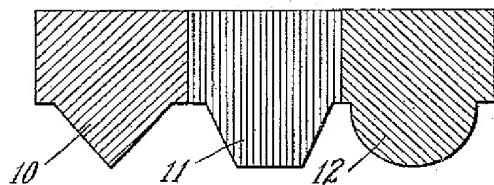


Fig. 1

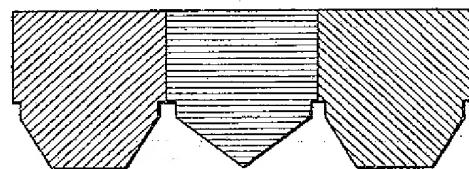


Fig. 2



Fig. 4

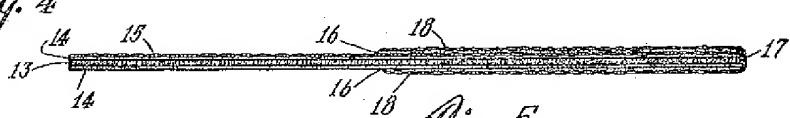


Fig. 5

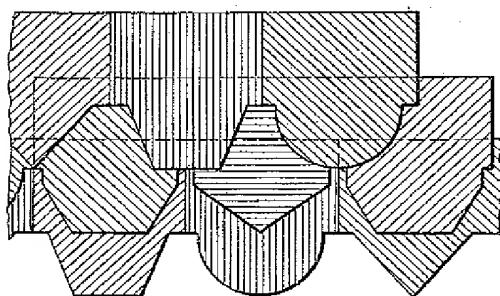


Fig. 3

Inventor:

Frederick C. Overbury
by his attorney, Henry May

Atty.

UNITED STATES PATENT OFFICE

FREDERICK C. OVERBURY, OF HILLSDALE, NEW JERSEY, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE PATENT AND LICENSING CORPORATION, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS

IRREGULAR STRIP SHINGLE

Application filed June 1, 1926. Serial No. 112,614.

This invention relates to fabricated roofing of a type which is commonly made of a base of felted fibrous sheet material saturated with a waterproofing asphaltic compound and 5 coated with layers of impervious material, such as "blown" or high melting-point asphalt and granular material.

In the manufacture of roofing elements of this type, material for the base is usually made 10 from a pulp of rag, asbestos or other suitable fibers, and formed into sheets on a paper-making machine. This felted fibrous sheet material is preferably saturated with an asphaltic compound, the saturant either being 15 mixed with the pulp in the form of an emulsion, or applied in liquid form to the dried sheet. The saturated sheet is then coated on one or both sides with a suitable coating compound, such as blown asphalt which, by reason 20 of its tough rubbery consistency at ordinary atmospheric temperatures and its relatively high melting point, is generally used for this purpose. To protect the asphalt from the deteriorating action of the weather, 25 it may be surfaced with suitable granular or comminuted material, such as crushed slate, tile, brick, or the like. Pulverulent material, such as powdered mica or chalk dust, may be substituted for the granular material 30 on areas which are not exposed to the weather when the element is laid, to prevent adjacent elements from sticking together when packaged for shipment. The roofing elements are then cut or otherwise separated from the 35 sheet, being given any desired size or shape. Such elements may be individual shingles or may be strip shingles, so called, with a plurality of tabs simulating individual shingles. This method of making roofing elements is 40 capable of considerable variation both in sequence of the various steps and in the manner of carrying out each step. By whatever process the elements are made, there is bound to be a certain percentage of "seconds" or elements with imperfections of one kind or another which prevent their being sold in the form and grade intended. The imperfections in such elements are often slight, and of a nature which in no way detracts from the 45 protective qualities of the element. By my

invention, I am able to reclaim and utilize a large proportion of "seconds" and thus prevent a large waste of costly material. This may be done by cutting or tearing material from the butt edges or portions of the elements so as to remove the imperfect parts and at the same time produce an element which will have irregularities of shape which offer great possibilities for artistic effects, avoiding the monotonous regularity which characterizes elements of uniform shape when laid on a roof.

After cutting or tearing the elements to irregular shapes, I may apply an additional coating of blown asphalt or the like to the whole surface or the exposed portion thereof, this coat also covering and sealing the cut edges. A surfacing of granular material may then be applied to the coat, this granular material being of a number of colors if desired. Where a plurality of colors are used, it is preferred that each color occupy a definite area substantially coextensive with that portion of a shingle strip which corresponds to an individual shingle. The additional layer of asphalt and grit also covers surface imperfections and adds materially to the thickness of the element, thus giving it a more substantial appearance.

My invention is not to be limited to the reclamation of factory seconds, as I may start with the coated and slated sheet material, cut or otherwise separate elements therefrom with irregularly shaped tabs, then apply an additional coating, sealing the cut edges, and surface the coating with grit which may be of a variety of colors arranged as hereinbefore described.

Further advantageous features will be apparent from the disclosure in the description which follows, and from the drawings, of which,—

Figures 1 and 2 illustrate strip shingles having tabs of different geometric shapes and different colors.

Figure 3 indicates the effect produced by a number of such strip shingles laid in overlapping courses.

Figures 4 and 5 show in cross section two examples of the structures which may be

built up in making strip shingles according to my invention.

Figures 6 and 7 illustrate different forms of strip shingles with tabs of various irregular shapes and different colors.

Figures 8 and 9 indicate the appearance of roofs laid with elements such as are illustrated respectively in Figures 6 and 7. Referring to the drawings in detail, Figures 1 and 2 illustrate forms of roofing elements which have a plurality of tabs of different shapes. The extensive cut-away portions make this type of strip shingle particularly valuable in the reclamation of factory seconds which may have slight imperfections such as cuts or tears in one or more of the tabs. The forms illustrated in these figures are illustrative of a large variety of combinations of shapes which can be made. In addition to various shapes for the several tabs, it is preferred to have a variety of colors, each color being confined to a portion of the strip shingle which corresponds to one tab. Thus in Figure 1, for example, a three-tab strip shingle is shown, one of the tabs 10 being pointed, another tab 11 having a semi-hexagonal shape, while the third tab 12 is semi-circular. These different tabs are surfaced with solid colors, the color of each tab being different from that of the adjacent tab. In reclaiming defective strip shingles, the defective portions may be cut out in any convenient manner so as to form tabs of desired shape, the shape being governed somewhat by the nature and extent of the defects. After the strip shingle has been cut to shape, it may be coated with suitable impervious material, such for example as blown asphalt or the like, this coating being applied over all the surfaces and edges of the element, or merely to the exposed surface and edges, or to any extent between these. While the coating is still hot and sticky, granular material of any desired kind, such as crushed slate, brick, tile, or other equivalent, may be applied, grit of different colors being used for the several tabs of the element. Figure 4 shows in cross section a refinished element comprising a fibrous core 13 of felted sheet material, preferably saturated with liquefied or emulsified asphalt. On either side of this felt sheet is a coating 14 of blown asphalt or the like, surfaced with grit 15 on both sides of the element. The refinishing coat 16 of blown asphalt covers the grit layers 15 and extends in a continuous film around the butt end of the element as at 17. This outer coating of asphalt is overlaid with a second layer 18 of grit which may be applied to the upper and lower surfaces of the element as shown, or simply to the upper surface and the edge. Figure 5 is a section similar to Figure 4 showing a refinished element which originally was coated on both sides with layers 16 of blown

asphalt, but was finished with grit 15 on one side only. As previously described, a second coating of blown asphalt may be applied over the exposed surface and edges, or over the entire surface of the element, the recoated portions being re-surfaced with an additional layer 18, different colors of grit being preferably used for the several tabs. It will be apparent that many variations are possible in the extent of the portions coated and surfaced with grit in the refinishing process, the examples given in Figures 4 and 5 being by way of illustration only.

Figures 6 and 7 illustrate two varieties of strip shingles which are made up to give an appearance of irregularity and roughness to the roof as a whole. The tabs on the element shown in Figure 6, for example, may be shaped by cutting or tearing so as to resemble the projecting ends of rough slabs of stone or tile. In the form illustrated in Figure 7, the usual straight line edges of the tabs are relieved by wavy or jagged lines, the regularity of effect being further eliminated by the difference in width of the tabs. In these forms also it is preferable to apply the final surfacing layer of grit so that each tab will have a solid color different from other tabs in the strip, although if desired two or more adjacent tabs may now and then be given the same color. When strip shingles are made up with tabs of unequal width as in Figures 6 and 7, it is preferred to regulate the widths of the tabs so that they will be limited to either thirds or fifths of the standard width. When laying such elements on a roof, the elements in successive courses should be offset laterally a distance equal to half the standard width of a tab. This will avoid the possibility of a slot between tabs of one element coinciding with the line of abutment between adjacent elements in the course below, a situation which would reduce the protection afforded by the roofing elements and would be liable to cause a leak at that point. By regulating the widths of the tabs as stated, such a contingency is avoided and all abutting lines of adjacent elements are covered by some portion of a tab, thus insuring complete protection.

It is to be understood that the invention is not to be limited by the embodiments shown and described herein, but is subject to such changes and modifications as fall within the scope of the appended claims.

I claim:

1. The process of refinishing strip shingles having shingle-simulating tabs, which comprises tearing away portions of said tabs to alter the original shapes thereof and to produce irregularly shaped edges, coating the exposed surfaces of the element with an impervious compound, and surfacing the coated areas with comminuted material.

2. The process of refinishing imperfect

strip shingles having shingle-simulating tabs, which comprises re-shaping said tabs into a variety of shapes by the removal of portions thereof, coating the exposed surfaces and edges of the element with an impervious compound, and applying granular material of different colors to the several tabs.

3. The process of refinishing shingles, which comprises tearing away portions of the butts to alter the original shapes thereof and to produce irregularly shaped butt edges, coating the exposed surfaces and edges of the shingle with an impervious compound, and surfacing the coated areas with comminuted material.

In testimony whereof I have affixed my signature.

FREDERICK C. OVERBURY.

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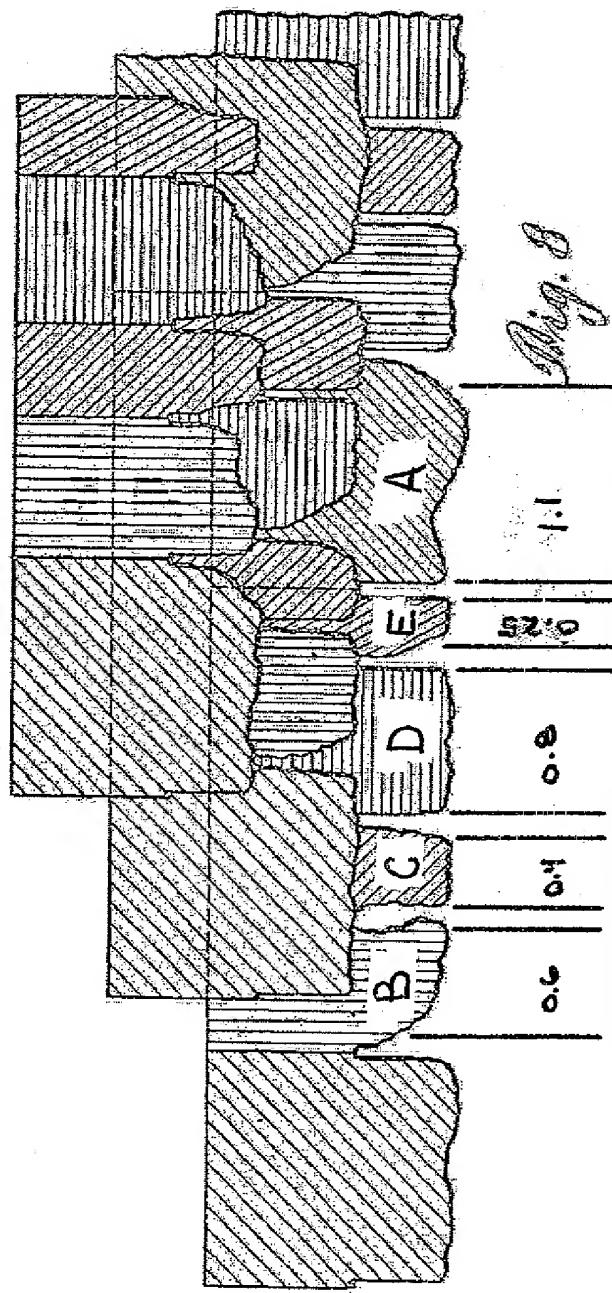
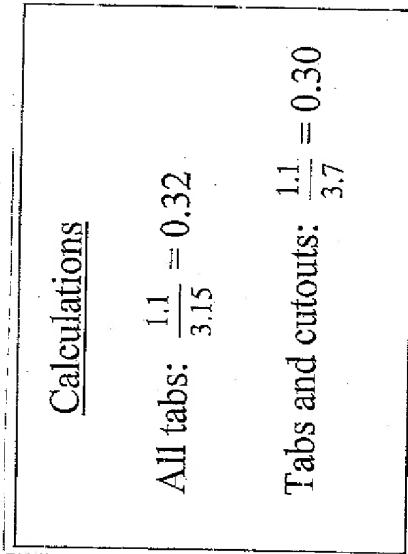
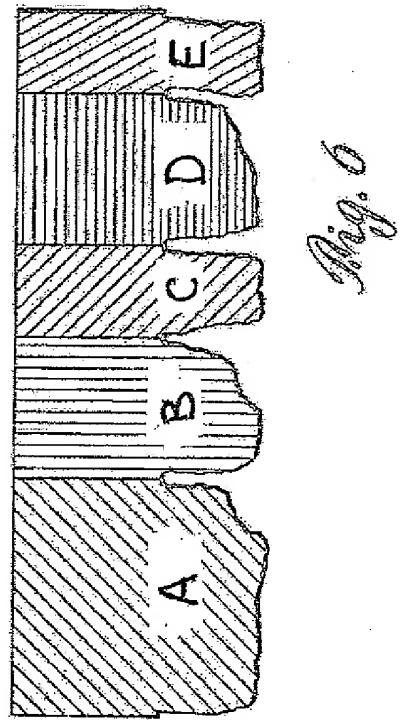
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Exhibit A

Print of Figs. 6 and 8 of U.S. Patent No. 1,843,370



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Bert W. Elliot) Group Art Unit 3635
Serial No. 09/515,928)
Filed: February 29, 2000) Examiner: Robert Canfield
For: SHINGLE FOR OPTICALLY) Confirmation No. 1357
SIMULATING A SLATE ROOF)
) Attorney Docket 24673A
)

DECLARATION OF DONN R. VERMILION

Commissioner For Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

I, Donn R. Vermilion, declare and state as follows:

1. I am a Senior Research Associate employed by Owens Corning at the Owens Corning Technical Center in Granville, Ohio. I joined Owens Corning in 1973 after obtaining my Bachelor of Science degree in chemistry from the Ohio State University in 1971. I have worked in various research capacities for Owens Corning for the last 34 years. Most of my work at Owens Corning has been in the area of roofing and asphalt products. I have been named as an inventor on at least 29 issued U.S. patents.

2. As part of my work at Owens Corning, I have been named as a project leader on a number of research projects. One of those projects on which I was named as the project leader was called the Mira Vista project, which was active in the 1998-1999 time frame. One objective of the Mira Vista project was to develop plastic resin tiles that simulated natural slate roofs when installed on a roof deck. The reason that

Owens Corning wanted to make such products is that natural slate roofs are considered in the marketplace to be a premium roof covering. As project leader on the Mira Vista project, I studied the appearance and construction of natural slate roofs, and evaluated various designs of plastic resin tiles that would mimic the aesthetically pleasing aspects of natural slate roofs.

3. Natural slate tiles have long been used as a roof covering. Natural slate is a durable material and is considered to provide an aesthetically pleasing look or appearance to a roof. Natural slate tiles are applied to a roof deck or roof framework one tile at a time in a labor intensive process, but the overall appearance of a natural slate roof is deemed by the marketplace to be worth a premium price. For example, the installed cost of a natural slate roof covering is approximately 4 times the installed cost of an asphalt shingle roof covering, and yet natural slate roofs are very popular.

4. One of the features of providing natural slate roofs is that different sources of natural slate are available in different regions of the country. Shipping costs for natural slate tiles are high because of the weight of the tiles, and therefore typically slate is obtained from local or regional sources. Different sources of natural slate have different colors. Commonly available natural slate colors are gray or green, and different natural slate colors such as red, purple or different shades of gray or green are more scarce. The realities of free market supply and demand commonly result in one slate color being less expensive than other slate colors. In any particular region the commonly available natural slate colors are less costly than the cost of the relatively scarce colors for that region. Accordingly, slate roofs typically have a predominant color, which is the least expensive color regionally available, with one or more additional colors interspersed to add variety and character to the roof covering.

5. Having a predominant color means that a natural slate roof has one color that occurs more frequently than the other colors in the roof. It also means that the more frequent color occurs sufficiently to be a prevalent color, and that the remaining colors are present for accent or variety. In fact, the prevalent color occurs with such frequency that the roof covering sometimes has an overall effect of just one color accented by the remaining colors.

6 In my experience, a natural slate roof typically has the appearance of at least 60% of the predominant color, with the remainder of the tiles being of an accent color. Commonly, the area of predominant color of a natural slate roof is substantially higher than 60%, such as, for example 70-80%.

7. In view of the above, the term "natural slate roof" has a meaning in the roofing industry of a roof covering having the appearance of exposed portions of individual tiles partially overlaid by tiles of succeeding courses of individual tiles. Each of the exposed portions of a tile has a single color, with at least about 60% of the tiles being of a predominant color, and typically significantly more than 60% of the tiles being of a predominant color. The remainder of the tiles of the natural slate roof are of one or more accent colors.

8 I have read the above-identified patent application (serial number 09/515,928), entitled "SHINGLE FOR OPTICALLY SIMULATING A SLATE ROOF", and have reviewed the drawings. I note that the independent claims define a roof covering that has an appearance that simulates a natural slate roof.

9. I have read U.S. Patent No. 1,843,370 to Overbury, which discloses a process of refurbishing asphalt shingles. Overbury discloses that initially, the original shingles are multi-tabbed shingles, which are described, at page 1, lines 23-27 of the specification, as having a surface layer of comminuted material, such as crushed slate. This surfacing material would give the original roof an appearance of a single color, i.e., the color of the slate material used for the crushed slate layer. Since the color would be uniform, the original roof covering using crushed slate would not have the appearance of a natural slate roof.

10. I also note that Overbury discloses that the original shingles can be refurbished by applying an additional layer of surfacing material, and that this layer of surfacing material can be applied in different colors. The additional surfacing material can be made of a number of materials, including crushed slate. Overbury discloses that the colors of the additional layer of surfacing material can be arranged so that each color is confined to a portion of the strip shingle which corresponds to one tab of

the shingle. Further, the color of each tab is different from that of another tab. This is disclosed at page 2, lines 20-31, and in the drawings.

11. At page 2, lines 90-96 of Overbury, the specification states that each shingle "will have a solid color different from other tabs in the strip, although if desired two or more adjacent tabs may now and then be given the same color." [Emphasis added].

12. It is my opinion that the level of ordinary skill in the field of shingle design is that of a product or process engineer with at least a bachelor's degree in engineering or science, and with at least five years of shingle process or product design experience. I also believe that the term "now and then" would be interpreted by a person of ordinary skill in the art to mean only occasionally, and would be interpreted not to mean that one color would be a predominant color.

13. I note that the strip shingle shown in Overbury's Figs. 6 and 8 has five tabs, each of the tabs having a different color, i.e., five different colors, based on the shading lines. One of the tabs, the leftmost tab, is wider than the other tabs. It is my opinion that a person of ordinary skill in the art would appreciate that by virtue of the wider tab of the one color, more of that color would be exposed on the roof. However, it is also my opinion that the width of the leftmost tab is not so great that a person of ordinary skill in the art would expect the overall roof appearance to be that of a natural slate roof since there would not be a predominant color to the extent expected in a natural slate roof.

14. Based on my visual inspection of the shingles shown in Figs. 6 and 8, focusing on the width of the different tabs of the shingle, I estimate that the color of the leftmost tab of Fig. 6 would appear to cover about one-third of the exposed area of the shingles when applied on a roof as a roof covering. This estimate is based on an analysis of a print of Fig. 8, a copy of which is attached as Exhibit A to this Declaration. The print is blown up and stretched in order to facilitate measurement. The added markings on the print of Exhibit A enable the tab length of a series of 5 tabs, marked as tabs A-E, to be measured. The markings added to the print indicate that the total length of tabs A-E is approximately 3.15 inches, the total length of tabs

A-E and adjacent cutouts is approximately 3.7 inches, and the width of tab E is approximately 1.1 inches. Without considering the cutouts, the ratio of the length of tab E to the length of all 5 tabs is approximately 0.32. When considering the cutouts, the ratio of the length of tab E to the length of all 5 tabs plus all cutouts is 0.30. Presuming that the width of the tabs is proportional to the area of the tabs exposed, the exposed area of the largest tab would be about one-third of the exposed area of the entire roof.

15. A person skilled in the art would not consider this relatively small percentage of the one color to be a predominant color. Consequently, a person skilled in the art would not consider the Overbury shingle shown in Figs. 6 and 8, or described in the patent to suggest a natural slate roof.

16. All statements made herein of my own knowledge are true, and all statements made on information and beliefs are believed to be true.

17. These statements were made with the knowledge that willful, false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful, false statements may jeopardize the validity of the application or any patent issuing therefrom.



Donn R. Vermilion

Date: July 9, 2007

Feb. 2, 1932.

F C OVERBURY

1,843,370

IRREGULAR STRIP SHINGLE

Filed June 1, 1926

2 Sheets-Sheet 2

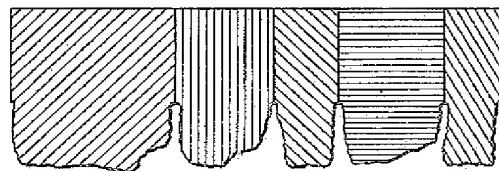


Fig. 6

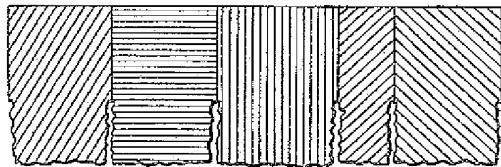


Fig. 7

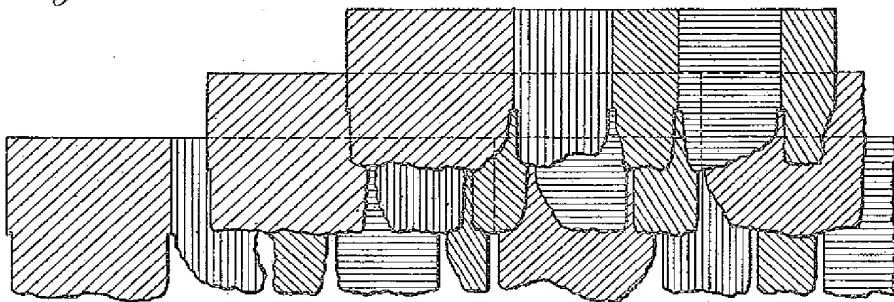


Fig. 8

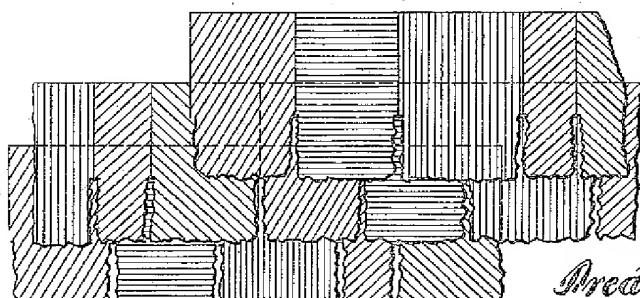


Fig. 9

Inventor:
Frederick C. Overbury
by himself & by May
Atty's.